

CLIMATOLO

U. S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATIONAUG 6 1970

HAWAII JANUARY 1967

No. 1

Volume 63

CLIMATOLOGICAL DATA

										 				16	CH.	2A &	R.						
					Tem	perof	ure			No	of D	oys	+	T			Precip	pitation Sno	w, Slee	,	Ni	a. of I	Days
Station		Average Maximum	Average	Average	Departure From Normol	Highest	Date	Lowest	Dote	Ma:		Min.	-	Total	Deporture From Normol	Greotest Day	Dote	Total	Mox. Depth on Ground	1	or More	.50 or More	1.00 or More
ISLANO OF KAUAI																							
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A	62.2	48.1 63.9	55.2 70.5			20		13	0	0	0	0	4.38 13.68 7.41 7.90 5.94	- 2.34 - 2.19	4.57		.00		000000000000000000000000000000000000000	15	8	1
KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	74.9 80.2	64.1	69.5 70.5	- 1.4 6		28		13	0	0	0	0 0	7.78 5.59 3.59 16.54 13.79	.87 .08 47		30	.00		0000	11, 4	2 3	2 1 2
PUEHU RIOGE 1040 WAHIAWA 930 WAIAH1 LOWER 1054 WAIMEA 947	A	75.0	58.7	66.9		80	28+	52	7	0	0	0	0	3.62 3.63 8.81 2.39	- 1.40 - 1.29	1.94	14	. (		0	16	6 2	2
15LAN0				66.5										7.50				• (					
* * * ISLANO OF OAHU																							
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU OAM 833	R	79.7 77.7M 76.3	65.2 62.8M 64.9	72.5 70.3M 70.6	- 1.1 9	85	29° 25 30	56	7 16+ 18+	0 0	0	000	0 0 0	1.07 .79 4.89 3.90 5.60	25	.6	12 12 2 3 1	01		00000	3 12 12	3 4	0
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718		74.2	66.5	70.4 67.8	1.0		30+	61 56	5	0	0	0	0	1.12 3.26 2.78 3.77 6.30	- 2.96	1.0	25 1 31 3 3	0 0		0 0 0	9	0 1 1	0 1 0
PRI WAHIAWA 820°2 PUNALUU 884 WAHIAWA OAM 863 WAIAHOLE 837	A	77.0M	59.9M	68.5M	- 1.6		30+		16+	0	0	0	0	2.55 4.06 V 6.74 5.44 1.75	= 6.95 = 2.35		5 12 3 12	01		0 0 0 0	5	0	0
WAIALUA 847 WAIKIKI 717.2 WAIPAHU 750	A	80.8	63.0	71.9		1	25		13 •	0	0	0	0	1.44		.50	0 12		0	0	3	1 0	0
ISLANO				70.1										3.12					0				
# # # ISLANO OF MOLOKAI																						1	
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	A	75.5	65.1	70.3		81	. 30	62	13+	0	0	0	0	7.16 5.75 6.34 6.23	3,02 1,89 2,07	2.0	5 25 24 3 25 6 25	0	0	0 0 0 0	10	2 2 3	2
ISLAND				70.3		)								6.37					9				
# # # ISLANO OF LANAI																							
LANAI CITY 672 ISLANO		72.1	60.5	66.3	.7	71	30	57	7	0	0	0	0	7.94 7.94	3.37	2.5	3 12			0	7	3	3
# # # 15LANO OF MAUI																							
HALEAKALA B E 5 434 HALEAKALA R5 338 HANA AIRPORT HONOKOHUA 493 KAHULUI WB AP	A A R	57.8 77.5 78.0	40.3 64.4 64.2	49.1 71.0 71.1	- 1.0	8:	210	56	7+	0 0	0 0	0	0 0 0	12.57 13.15 5.47 5.50 3.85	1.44 .71	7.5 .8: 2.0 2.1	8 4 0 12 3 5 6 26 5 25 7 26			0 0 0 0	10 15 4		0
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	A	76.6 68.6 81.3	57.2 52.3 61.0	60.5 71.2	- 1.5	71	3 1 3 2 5 3 3 0 4	52 48 54	9+	0 0	0	0	0 0 0	6.97 16.40 7.64 3.72 5.44	2.30 90 2.65	2.2	4 12 1 27 9 12		0	0	14 6 5	6 3 3	2 1 2
PAIA 406 WAILUKU 392 ISLAND		79.0M	62.8M	70.9M 65.8	8	8 8	5 23	57	14+	a	0	0	0	4.97 6.06 7.65	2.27		5 26	•	Ö	0	10	3	1

					Tem	pero	ture										Precip	oitation					
											No.	of Do	15					Sno	w, Sleet		No	o. of	Do
Stotion		E a	age Cu	0	Vormol	-				-	Mox	٨	Nn.		Deporture From Normoî	est Doy			Mox. Depth on Ground		More	More	
		Averoge Moximum	Averoge Minimum	Averoge	Deporture From Norm	Highest	Dote	Lowest	Date	90 01	32° or	32° or Below	Below	Totol	Depoi	Greatest	Dote	Totol	Mox.	Dote	.10 or	.50 or	
ISLAND OF HAWAII											Γ												
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT HUEHUE 92A	R A	74.9 65.5 79.9	58.6 48.1 63.9	66.8 56.8 71.9	- 2.7 - 1.3 1.1	71	31° 28+ 24	42	12 12+ 13		0	0 0	0	8.69 5.35 8.04 2.77	3.63 - 6.87 - 3.78 - 1.36	2.65 1.63 2.05	12	.0	0 0		12 10 14	4 3 6	
CAINALIU 73B	^	76.3	58.3	67.3		80	25	54	12+		0	0 0		1.84	- 2.12	•59	2	.0	0		7	1	
(AMUELA AIRPORT (EAAU 92		69.8 78.4	51.0 60.6	69.5	- +8		30 25	44 57	7			0 0		3.95 8.76 10.51	- 3.80	2.60 2.27 3.00	12	•0	0	ē.	13	5	
KEHENA RESERVOIR 176.1 KONA AIRPORT 68.3 KUKUIHAELE HIC 199	А	80.5	62.1	71.3		82	29+	60	30+		9	0 (		.71 9.55	3.42	.24 2.30	15	.0	0		13	5	
CULANI CAMP 79 PAHALA 21		61.6 78.7	40.8 58.6	51.2 68.7	- • 3		25 22		23 12+				0	11.16 1.28 1.90	- 6.75	3.90 .78		.0	0	1	10	6	
POHAKULOA 107 PUAKO 95A PUU WAAWAA 94.1	A													1.99	- 1.29	1.01		.0	0		2	2	
JMIKOA 118 WAIAKEA SCD 88•2														13.43 12.34	6.27	4.13 2.80		.0	0		12	8	
ISLAND				64.9										6.13				.0					

#### SPECIAL WEATHER SUMMARY

The outstanding weather event of the month was the uncommonly heavy fall of snow which, beginning late on the 11th, blanketed the upper reaches of the State's higher mountains, Mauna Kea, Mauna Loa, and Haleakala. Described by residents as the heaviest and lowest snowfall in memory, the snow line reached to 9,000 ft. on Haleakala and to 7,800 ft. on the southeastern slope of Manua Kea. Patches of snow were observed down to 7,000 ft. on Mauna Loa. Hundreds of residents of Hawaii Island drove up the mountain slopes to see and romp in the snow fields.

On the summit of Haleakala, ice up to 6 inches in thickness snapped power and television lines and made roads impassable. Many lower-lying areas had heavy rain. At the Ranger Station, at an elevation of 7,000 ft. on Haleakala, 7-1/2 inches fell within a few hours on the night of the 11th. In Hawaii Island's Waimea district, the downpours did \$25,000 damage to crops and fields, while strong winds accompanying the rains in the Puna area toppled papaya trees and scarred tender vegetables.

The thunderstorms which brought the snow and

rain were associated with a small low pressure area centered directly over the State, and the snow itself with a freezing level which, on the Hilo sounding, dipped below 8,000 ft., an unusually low height for the latitude.

The month contained two other noteworthy events. On the night of the 5th, surf reported to be from 20 to 35 ft. high, pounded the eastern coasts of Hawaii Island, causing the highway at Hilo Bay to be closed for several hours, slightly wetting the interiors of two hotels, and doing \$16,000 of damage to the sugar mill of the Pepeekeo Sugar Company at Hakalau on the north Hilo coast. Early on the afternoon of the 14th, thunderstorms accompanying a cold front deposited hailstones, some of them as big as marbles (unusually large for Hawaii), at Makawao on Haleakala's northwestern slopes.

Despite the heavy rains of January 11 and 12, only a few gages greatly exceeded their monthly means, while virtually all of Oahu and Hawaii Island's southeastern sector, from Volcano National Park to South Point, received less than half their average rainfall.

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Station		ota]													Day	of M	onth																
	_	Tot	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	3
SLANO OF KAUAI																																	
AHOLA 1111 YOE5WOOO 5TA 985 5T LAWAI 934 EELE 927 LAULA 1110	AAAA	4.38 8.78 7.48 3.95 4.70	*	•	.41 3.76 I.52 .89	•16 •48 •81 •06 •13	•13 •01 •02	.17 .12 .24 .03	*	:	.20 .01 T		•02	.07 .06 .10 T	.03 .23 .32 .09	*	* * * * * * * * * * * * * * * * * * * *	2.01 .90 1.75 .52 1.84	.06 .01 *	.09 .09 .11 T	.04 .08 .02	.04 .12 .11 .02		* * * * * * * * * * * * * * * * * * * *	•13	•10 1•05 1•10 •77 •08	+81 +52	.01 T	•01	* * *	*	.10 .99 .67	9 7
LENANAHO 1006 KIPO 945 IILIULA INTAKE 1050 TAKE WAINIHA PC 1086 LIHIWAI RES 1131	A	8.39 2.45 13.04 27.86 9.17	1.80	*03 1.50 1.20	1.79 .30 1.68	.99 .86 3.60 2.30	.16 .26 1.05 .10	.37 .48 1.17 .31	*10	.04	.05 .03 1.95 .65		•03	.09 .16 2.20		2.40 0.50	.44 .25 1.02	1.68 .05 8	.06	.15	.10 .38	.20 .34 .92 .15	•30	* .17 *	*08 *27	1.02 .55 1.15	+36	.02	.04 .85	*	*	.45 1.07 .65	5
NALOHULUHULU 1075 NEMA RESERYOIR 1092 PAA STABLE5 1104 ALIA 1112 KAMA 944	A A	13.68 11.97 7.41 4.99 1.85	:	.10 * * *	.28 1.68 .80 .27	.68 .83 .30	.05 .24 .32 .18	.38 .52 .45		1.29	.05 1.12 .27 .32		•15 •05 •02	.25 .21 .05	.78 .43 .22 .17	4.57 ** ** ** **	• 35 • • • • 03	.07 4.47 3.40 2.55	.07 .04 .30	.04 .09 .10	•11 •08 •04	.03 .12 .06	.02	* *	•45 •10 •06	1.85 .13 .11 .09	•38 •43 •31		•03		.54 *	.8- 1.05 .37 .37	7
AUEA 1134 AUEA FIELO 17 1135 AUEA POINT 1133 O 1033 OA 936	A A	6.50 7.90 5.94 5.59 7.78	.13	* •24 •09	.07	1.00 1.45 .15	*19 *15 *20	.21 .22 .12	* •05	* * •48	.65 .68 .05		.01 .01	.23 .04 .19		* 1.85 1.70	* *36 *09	2.77 2.93 .48	.08	.05 .19 .07	.02 .08 .06	.12 .14 .11	* *10	* •05	•16 •38 •01	.02 1.16	•68	•01		*	.01	.44 .39 .43	3
UIULA 935 HUE VARIETY STA	A A A	9.22 9.99 5.33 8.99 6.64		* * * *67	2.71 .67 .08	.93 1.59 .44 .87	.09 .14 .04 .37	.26 .27 .13 .37	* * *02		.82 .02 .04		•03	.06 .10 .08 .17	.20 .31 .45 .18	* * * 3 • 45		2.09 4.76 1.41 .70 2.90	.02 .01	.12 .24 .04 .39	.09 .01 .06 .10	.21 .19 .05 .13	e e •03	*	•13 •42 •08 •04 •02	1.04 .51 .79	.83 .81 .75	.01				.35 .32 .60	2
AHUENA POINT	R A	5.59 3.66 2.63 3.59	T •09 •01	•02 •05	.26 .16	•01 •17	.13	.07		T •03	T		.04	•32 •12	1.81 .15 .22	.36 .63 .14 .82	•30 •22 •05	.40 .11 .03	•06	•04	*05 *02 *01	T .09	•01			1.22 .40 .73	•04 •72 •06	T	T		•70	.27	7
OAA 1145	A	5.60			.50	•18	.10	.09			.35		.01	.02	.18			2.81	.02	.10	.01	.11			+16	.03						. 27	
RIOGE 1035 AILUA 01TCH 1051 WAINIHA 1115 NCEVILLE RANCH 1117	-9	3.72 16.54 13.79 6.49	.26 .38	.08 * .35 .49	6.68 .80 .10	1.07 .94 .08	•31 •33 •34	.34 .63 .36	* •24 •11	* •58 •44	.46		.06 .01 .14	.28 .35 .49	.24 .32 2.29 .11	* 4.57 1.62	1.02 .68 .12	.06	.04	.24 .11 .16	.36 .08 .05	.28 .05 .16	• •05 •08	.04 .05	•46	.50 .79 7	1.07 .84 .51	т	.15	٠	* •04 •11	1.23 .46 .52 .45	6 2 5
ERVOIR 6 1004 JAWA 930	A A A	6.67 8.39 3.63 9.50	*	.47	.97 1.77 .81	•40 •71 •09	.20 .09	.50 .38 .09	*	*	.03 .02		* <sup>0</sup> 4 T	.18 .05 T	.19 .37 .11	*	.79 * *	1.93	.05	.17 .22 .03	.05 .13 .03	.14 .18 .04	*	*		.39 1.15 1.45 .52	.75	*01		*	*	1.16 .33 .40 1.07	3
AHI LOWER 1054 AHI UPPER 1052 AWA 943 LUA KAI 1065 MEA 947	A	8.81 12.00 1.90 6.80 2.39		1.02 1.57 .29	.11 .15	.42 .38	.18 .20	.43	•05 •08	•02	.05 .02		•05	.07 .09		1.94 1.27 .18	.35 1.33 .10 *	3.19	.02 .02 .04	.28	.20 .31	.32 .41	•15 •13	.06 .15	.03 .02	.83 1.10 .20 .48 .67	1.09 .18 .40	.01		*09		.26 .05 .91 .16	5
	A	4.61		•	.76	•57	.02	.19					.01	•10	.24	•	•	.54		.04	•06	•06	•	*	•12	.86	•42	.01		*	*	.60	)
LAND OF DAHU	1													ĺ																			ŀ
A FIELO 625 761 ETANIA PUMPING 5TA P 84 C P C 807 ONUT 15LANO 840+1 PLANTATION 741	A	2.33 1.97 2.59 4.99	.05	* •16 •03 •05	.33 .12 .29 .22	.58 .28 .13 .18	*08 T	.13 .01	* •06 •30	• 03 • 03	.08 .11 .05 .05		•05 T	.51 .40 .26 .32	Т	** 1.18 .01	.15 1.76	.02	T .73	.12 .02 .07	.14 .01 .04 .25	† <sup>17</sup>	.04		т		•12 •11 •30 •05 •14	Т		.01			
EMANO INTAKE 881 ULOA 725.2 OLULU OBSERV 702.2 OLULU WBAP 703 OLULU SUBSTA 704	A A R	8.67 2.16 1.07 .79 1.94	* * T	* •03 •01 •13	.05 .17 .21	* *20 *02 *02	* T T	.03 T	* * * *	* T *03 *10	5.75 * .02	* * T	* * •05 •03	.26 .31 .27	*	.03 .02	.11 .01	.70 .88 .09	* *09 T	T T 01	+45 # T T	* T T	* T T	*	*61	* T	1.28 .15 .16 .13	*25 *	:	*	*	* *	l
P A EXP STA 707 ANA 883 JKU 912 JUA FIRE STA 791.3 IMI RE5 51TE 777	A	2.35 6.91 4.89 2.51 3.24	.02 * .05	.22 * .13 .01	.24 1.77 .07 .09	.75 * .09 .12	14 • 14 • 03 • 08	.03 .12 .06 .56	.05 e .09	.08 * .03	7 •98 •07 •01	* T	* <sup>01</sup>	•62 •12 •32 •28	* T	* * *06 *10	.03 * .60 .22	.11 2.30 3.15 .85 .20	.44 .01	.01 * .04 .15	.01 * .05 .01	T * 02 * 01	•02 • • •01 •04	.02	1.72	*	*15 *27 *U2 *10	* •01	*		٠	.14	
ALAMA 773 AIHAPAI 841	4444	3.90 2.41 5.90 1.97	.03	•15 *	.62 T 2.80	.15 .09 .85 .34	•14 •10 •09 •03	.09 .15 .05	•32 •60 *	.09 #	.10 .10 .38 .30	* <sup>01</sup>	•03	.55 .26 .84	. 33	.43 .04 #	.55 e e	.06 .15 .62 .10	.08	.19 .05	•06 •06 •50	.01 .10 .01	•02 •22	•02	•01 •01	_	•10 •15 •14 •73	.02 .09	-01	.06		т -	
OO CAMP 8 855 LAU OAM 833 E 903 LUALEI 804 LUALEI WTR TUNNEL	A A A	3.06 5.60 4.69 1.12 3.45	.82 .20 .02	* •36 •13 •05	.38	.69 .67 .07	.04 .08 .03	.05 .14 .10	* •04 * •01	.08	.33 .15 .09		•05	.56 .65 .18 .21	.02 T	* *49 *	•12 •03 *	2.90	.10 .04 .21	.02 .36 .00	.06 .64 .09 T	.05 .35 .07	*07	.08	• O 5		+89 +22 +45 +46	.01	T .				
ALILO HOME 724.2 AHA KAI 796 AHA VALLEY 800.1 APUU POINT 724 OA 712		2.55 1.48 1.61 3.26 5.28	.02	•62	.30	.15 .02 .02 .15	.06	.05	.05 .01 .09	•06 T	.07 .04 .08 .10		.04	.87 .26 .36 .47		.45 .66 .36	•04	.02	•15 •43	.04	•03	.04	•04	•01		т	.35 .35 .35 .45	.04					
OA TUNNEL 2 716 NALUA 770 ANU RES 4 783 ANU RESERVOIR 5 775 EULA 870	A	7.16 1.66 2.78 3.53 3.77	.22 .15 .18	.72 .05	2.52 .16 .68 1.07	•38 •35 •16 •58	.12 .10	.58 .08 .40	.24	.08	.02 .07		.26 .03	.94 .42 .24 .45	.04	:	.02 .02 *	.03	.14	.24 .07 .08 .10	.14 .05 .04 .09	.08 .03 .02 .07	•06 T •02	.08			*14 *15 *14 *25 *22	T • 05	•02				
OLO VALLEY 718 OA FLAT5 784 TLOCK ROAO 724.4 WAHIAWA 820.2 ALUU 884		6.30 5.50 2.80 2.55 4.06	.18 .22 .14	.80 .42 *	1.88 1.58 .37 .59	.24 .32 .19 .19	.14 .20 .01 .02	.50 .66 .05	.20 .32 .06	.36 .18 .10	.01 .12		.10 .04 .09 T	.90 .52 .84 .66	ø54	*	. 04 #	.16 .42 1.45	.06 .18 .18	.22 .32	•16 •24 •04 •10 •12	.04 .10	.02	.10	.01 .14		•16 •33 •21 •12	T +01	.08	*		.43	3
STEPHENS SEM 788 TALUS 2 780.5	A	2.07 3.41 5.01 3.62 7 6.74	.05	•14 •96	. 62	.21 .20 .91 1.20	.02 .13 .12 .02	.03 .04 .06	.07 .58 .36	.01 .05 .03	.08 .04 .18 .21 3.66	•01	•01 •01 •04 •02	.43 .29 .68 .99	T •02	• 23 *	.55 .04 #	.34 .08	.08	.03 .03 .06	.04 .11 .37 .02 .07	.01 T .33 T	.01 .04 .11	.03	.03		•12 •35 •12 •14 •34	.02 .02 .04 T	.01	.01 .03	•01		-
ALAE KAMALA 715 ALUA 847 ANAE 798	A	5.44 2.11 1.75 1.12 7.22			1.14	.59 T .26 .02	.19 .13 .03	.28 .47 .03	.29		.55 .11 .23 .05	•01	•01	1.00 .65 .43 .27	* <sup>01</sup>	* T •07 •13 2•06	T .	.29 .12 .16	*17 T *33	•22 •03 •04	•19 •07 •07	.15 T .01	* T	•01	*		•17 •20 •41 •32 •81	.06 .02 T	* 04	.06			
AWA 836 KANE 885 KIK1 717.2 LUPE RESERVOIR 170	44 44	6.97 4.76 1.44 3.45 3.91	* * * * * * * * * * * * * * * * * * * *	.08 .18		2.59	* T 1.36	.02	* * •06	.02	* •91 •04 *	:	1.02 # T	.50 I.51	* *	• 02	* • 08 *	1.54 2.12 T *	* * * * * * * * * * * * * * * * * * * *	.01	* *	1.28 * T		:	* 84		* *25 *	* T •23 •03	.09	• • • • • • • • • • • • • • • • • • • •	:	.10	
	A	3.55			* 12	1.02	.04	.18			•22			.35				.72 .13	.13	.11	•15 •05	.30 T	•	*	•05		•40	•01					

See reference notes following Station Inde

Continued							_			~											_									JANUAF		1967
Station	Total	, ,	0		4 1		6	7	8	9	10	11	10		of M		16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
g 0 0		1	2	3	4	5	0	/	8	9	10	11	12	13	14	15	16	17	10	13	20	21		20	27	20	20	2,	20	20	-	
15LANO OF MOLOKAI			2.0	-	2.0						.50		.99			.17	.08							Т		3.70	т	,			т	
KALAUPAPA 5-63 KAUNAKAKA1 5-36 KEONELEE PEN5 5-51 A KUALAPUU 5-34 MAPULEHU 5-42	3.97 3.70 7.16 5.75	e • 25	. 22	.37 * .48 .25	•29 •17	.20	*	:	* * *l6	* *26	a	1.58	.74 1.50	* 04	*	* * * * * * * * * * * * * * * * * * * *	1.00	* •02 •31	.08	•10 •08	.02	*	•	*	* •01 2•00	3.04 2.60 3.46 .49	.19	.04	*	*	.12	*
MAUNALOA 511 MOLOKAI AP 524 PUUDHOKU RANCH 542-1 WAIKOLU 540 A	6.34 6.23 5.47 20.45	.01	.13	.21 .04 .40 4.00	•10 •12 *	.02 .08	.01	.10	.05	.25 .16 .8 5.90		.70	1.08	•12 •03	*02		1.31	.01 .75	.03 .12	.06 .16	.01			•71	3.15	2.73 2.36 .30	.10 .32 .45	.16	.14		.10 T	.24
15LANO OF LANAL																																
KANEPUU 690 A KAUMALAPAU HARBOR 658 A LANA1 CITY 672 LANAIHALE 684 A HAHANA 694 A	5.17 4.17 7.94 7.36 5.62	* 02 *	# T #	.12	* 18	.32 .13 .28		T .	* •06 *	**16;	:	**************************************	.64 1.67 2.53 .31	.04	.07	• 02	* T .01	# T #	:	.31 2.53	.03	* 06	*		.16	2.38	3.80 2.20 3.94	.08	.03	* T * *	:	.10 . .30 . 5.62 .
MALAUEA 676 A WALAKEAKUA 685	5.06 8.51	*		.03	*	.02	*	* *	*	*11	*	*	1.47				.16	.22			*	•	*	*	:		3.55 5.11		*	*	*	*02 * T *
# # # ISLANO OF MAU1										1																						
AUWAMI%252  MALEAKALA B E S 434  AHALEAKALA MANCH 432  AMALEAKALA RS 338  HALEAKALA SUMMIT 338,4	3.32 12.57 9.29 13.15 5.50	.56	.78	.62	3.38 2.08 1.41 .15	1.34 .68 .40	.05	•30 #	:	.64 .42 .01	* T	.34	1.20 2.84 2.78 7.50	•27 •43 •03	*65 *80 *02	•03	.06 3.50	.03 .23 .36	.02	•05 *	* .11		*		.04	* •04 •45	•75 •93 •64 •21	.21 .0= .48	*		.82	* *
HALIIMAILE 423 HAMAKUAPOKO 485 HANA 354 HANA AIRPORT HANAHULI 281	5.24 5.54 5.06 5.47 5.59	,10 ,12 ,25 ,23	.40 .15 .42 .27	.69 .55 .45 .23	.63 .50 .40 .36	.73 .35 .01 .83	.07 .03 .05	* 02 T	* •23 •26 •02 T	.22 .06	•01 T	.07 .91	1.35 .70 .95 .42 1.72	.14 .02 .01 .25	* •07 T	* T •01	.09 .40 T	.06 T .10 .10	.02 .02 .30	.01 .09 .10 .03	.07 .07	T T	.03 .18 .02	•15 •37 •28	•01	•50 •21 •16	1.10 2.02 .20 .79	.07 .04 .1 .23	T •21 •02	T •02	.09 T	•
HONOKOHUA 493 A HONOMANU GULCH 341 A	8.83 14.16 5.50 15.80 13.94	*		.79	* *51 *	* •05	* * 4.75	*		* •24	*	* •01 *	.64	.19 .4.56	*	*	8.80	*	.23	.03 .09	.03 .03	:	* * * * * * * * * * * * * * * * * * * *	* •03 •	*	* 11	# 2.06	.06	:			* . 4.16 . 5.80 .
KAHULUI WB AP R KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 A KEAHUA 410	3.85 16.27 6.97 14.11 3.72	.03	.08 .75 *	.07 .95 	.23 .50 2.40 .18	.01 .87 .25	.01 .10	T # .08	.02 * .11 *	T .08 1.50	T *	08 08	T 1 *62 *1.44	.01 .04	04 **	* •01	* *38 6.21	.02	T * •28	T * •17	.20	.02	.06	.01 .30	T .	2.15	.13 .97 #	.06 3.70	.01	.03 .01	T .02	6.27
KEANAE 346 KEAWAKAPU BEACH 260°2 KIMEI 311 KIPAHULU 258 KULA HEIGHTS 323°2	16.40 2.10 3.63 7.64 5.23	e •57	* • 5 2	.24	* 02 •55 •22	.01 .69	•	•01	*	* •05	•		.66 2.00 2.24 3.33	.04 .10 .26	•11	•	•	.18	• 32	.10	* 11	•	*	? 1 • 30	• 47	T	.08 1.43 .25	.08	•	*	. 1	6.40 · · · · · · · · · · · · · · · · · · ·
KULA SANATORIUM 267 LAMAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442 A	3.72 5.44 12.83 5.55 11.70	.08											2.00 e	.04 	.33 .15 .50	.05 .03					.01 	•11		:			2.07	1.41 .17 .03	.02 n		- 1	.17 . 2.83 . 1.70 .
MAHINAHINA 466 A NAKALELE %FLO 60%497 A OLINGA 332 A OLOWALU 296 OLOWALU GULCH 377 A	8.16 4.85 5.67 5.32 11.40	:	:		1.92	.56 .60	.01	:		•36 1•27 •09	•01	.45	2 • 27 1 • 87		* 1.05	•42 •	1.36	.53	* •02	a T	.02 T	*	e n	*02 *19 T	a T	*	2.15 .74 1.98	.20 # .28		:	1	T .
PAAKEA 350 PAIA 406 PANILEIHULU 259.2 A PAUMELA 490 A POHAKEA 8R10GE 307.2	V28,27 4,97 2,21 6,95 4,04	.01	4.40 .21 #	1.22 .22 # 1.87 .01	1.15 .56 	3.84 .30 .58	.30 .03 .06	T	•16 *	.38 .10 .10 .12	•04 #	.07 2.10 .07	2 * 25 • 72 • 84 1 • 74	.25 T	*02 # *	**	.11 * .78		.83 .10 .11 .27	.37 .06 *	.30 .01	*11 T	.06 *	.06 		*	1.46 2.15 1.56 1.30	.02 .12	T *		.25	*
POLIPOLI SPRINGS 267.2 A PUOHOKAMOA 2 343 A PUU KUKUI MAKAI 472 A PUUNENE 396 SPRECKELSVILLE 400.2	3.06 7.80 15.80 4.04 4.86		.10	• • 15	1 • 42 # • 28 • 48	* * *22 *15	.02	:	* * *	* * •06 •02			* * 1.14 1.32	* * *01 *02	* * * * * * * * * * * * * * * * * * * *	* * T	1.52	*	.01	* **	*		* *	:		*09 * *12 *04	* * 2.08 2.15	* * •11 •05	* * T	:	* 1	7.80 · 5.80 ·
TWIN GATES 261.3 A UKULELE 333 A UKUMEHAME 301 ULUPALAKUA RANCH 250 WAHIKULI 364 A	4.34 12.43 4.86 2.46 6.81	a a	*	.05	.14 .13	:		:		.03	:	•08	1.64 2.05 .42 2.88	1.10	.30	.08	:	*		*	:	:	:	*	:	•09	1.60 2.15 1.01 3.05	.05 .90	*	:	* 1	2.43
WALEHU CAMP 484 WALHEE VALLEY 482 #AIKAMO1 449 WAIKAMO1 OAM 336 WAIKAPU 390	5.33 5.13 12.70 12.66 7.29	*	.16 .30 *		.18 .60 * 5.71		.14		:	.19 .19 .66	* •04	•07 #	1.53	•02	.03 .12 *	:	.18 .20 *	* .02	.04	* .16	.02 .04 .01		:	.06 *		* T		.53 .53 * .38	:	:	.02	.05 . 2.70 . .02 .
WAILUKU 392 WAIDPAI RANCH 256 A # * * ISLANO OF HAWAII	6.06 2.12	•	.07	.22 .38	•64	.01	.10	T	•13	Т	T *	•27 #	1.50	₹ 496	Т	T	Т	.06							:	2.38	.67	.01				:
AHUA UM1 75 A AWIN1 182.1 A EAST HONOKANE 1838 A HAINA 214 HAKALAU 142	2.60 16.22 19.45 8.69 11.81	4	* * •20 •70	* * .19	.02 1.23	* * 2.36 1.57	.11	*	* * * * * * * * * * * * * * * * * * * *	8.82 .29 .31	* •06	•12	2.62 2.65 3.50	* .02	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	2.85 * .41	.29 .78		.01	.34	*	* * .03	* •38 *				* .01	* * *	* * .04	.17	2.60 .
HALEMAUMAU 52 A HALEPOHAKU 117 A HAHAHAII VOLCAS NP HO 54 HAWI 168 A	1.98 8.28 2.00	* * * * * * * * * * * * * * * * * * * *	# # # .74	* * * * * * * * * * * * * * * * * * * *	* * *02 2.78	* * * * * * * *	* * *02 *21	# # # T *	***************************************	* * *05	# # T	* * * * * * * * * * * * * * * * * * * *	* * 1.63	* * * *01	:	* * * * * * * * * * * * * * * * * * * *	* * * *25 *02	* * .06	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *		* 01	*	* * T •38	# # #	e e T	* * •08 •01	.05	* * * * * * * * * * * * * * * * * * * *	* * T		1.98 . 8.28 . 2.00 . T .
HILO WB AIRPORT R HOLUALOA 70 A HOLUALOA BEACH 68 A HONAUNAU 27 HONOMINA 137	8.04 2.80 1.30	1.64	.62 .68 .53	.36 *	1.38	.02 1.70	.02	T *	.02		•	2.05 *05		.02	•12 •14	• •62 •03 •26	.53	.36	*14	.16	.01	T #	.06	.02 .10	*	•		.78	* 02		2.80	T .
HONOKANE 181.1 A HONOMU MAUKA 138 HONUAULA 71 A HUALALA1 72 A HUEHUE 92A A	17.96 15.31 2.20 1.50 2.77		1.04	# *26 #	3.89 1.24 *	4.69 3.82 *	.28		* 03 # #	1.16	.02 .03		3.31	.03 	*	# +92 #	2.30	.76 .51 #	.82	.13	e • 0 2 e		# •04 #	.43 .01 	*		:	.02	.13	* • 05 *		2.20 · 1.50 · 1.04 ·
KAALA 1K1 12 A KAAWALOA 29 A KAIWALIU 738 KAMAOA NO 2 5 A KAMUELA 192+2	2.59	.40 * .13 .07			•12 T	.85 .12	-11	•06	.07	•54	•01	•02	.72 .20 .30 .50 3.42	.04 .05	* •17 * •07	.40 *.20 *.01	.55	.02 .01 .25		.05	•04		,06	•05	.05 .46		.50	.02	.10	*	.12	* . T .

see reference notes following Station Inde

Continued																															HAWA1 JANUA		1967
Station		otal													Day	of M	onth																
KAMUELA AIPPOPT		3.95	1 .02	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAPAPALA RANCH 36 KAPOHO LANOING 935 KAUMANA 88.1 KAWAINUI LOWER 193	A A	2.59	.07				2.23	5.48		*	.29 .23	*02		2.60	.02 .05 2.82	* 06 **	.13	.55 .05	7 +25 #	T 1.30		.04 .42 .01 2.40	T	· 03	•01	*46	.23	.03 .50	.02 .21	.10	• • 56	.07	.02
KEAAU 92 KEALAKEKUA 26.2 KEHENA 181.2 KEHENA PE5ERVO1P 176.1 K10LAKAA A ? F 6	AAA	8.76 2.43 15.40 10.51 1.73	.03	.38 .68 		•15	1.03 .80 8	.35 .25	T e e	*	•10 • •52	T • 0 3	.04	2.40		.09 e e	642 614 8	*13 T *75	1.10 .02 .20	.50	*14 * *08	.04 .12 .15		.02 .07	* 11 * *15					*	T o	.07	15.40
KIPA 89.2 KOHALA 179A KOHALA MAULILI 176 KOHALA M1551ON 175.1 KOIAWE LOWER 196	AAAA	11.52 7.49 8.85 7.48 12.97	.20	.94 * .37	.35	2.53	2.30 1.54 2.03 1.37	.22 .25 .39 .18 5.70	:	:	.44 .02 .07	•01 T	.01	1.77 1.50 1.70 1.49	T 5•42	* * 10	.30	.02 .70 .54 .38	.05	1.05 .42 .85 .57		.33 .25 .29	* * •23	.05 * .23	•15 •36 •35 T			•01 T		•02	.10	.04	
KONA AIRPOPT 68.3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 206 KULANI CAMP 79		.71 10.66 9.55 8.66 11.16	.30	•82 •52	.18	1.16	2.33 2.30 2.30 .82	.37 .31 .21	•07	•09 •12 •08	.50 .41 .27	•09 •04 •04	•13 •15		.35	T •03	•24 •23 •03 •06	.35 .14 .30	.01 .89	•21 •30 •42	.04 .06 .03	T •01	•03 •08 •02	•03 •03	+06					.09	•17		.09
KULANI MAUKA 76 KULANI 5CHOOL 51TE 78 LANIHAU 68 C MANUKA 2 MAUNA LOA SLOPE 085	A A	3.47 10.27 4.29 3.01	* 49 #	.24 2.55	.05 #	•56 e	.06	8.10			* 01	• 08	.28	. 45 . 55	2.00 .15 .06	•15 •	.02 * .74 *	.17	.20		•	•	• 06	.01			٠	٠	.04	•	•	* T	•10
MIOOLE HOLUALDA 68.1 MIOOLE PEN 147.1 MOULA 18 MOUNTAIN VIEW 91 NAALEHU 14	A A	1.72 1.72 1.70 11.77 1.14	2.96	.89 * * .71	.05	* * *74 *15	* 2.35 .01	* • 40 T	*	:	.80	•40 * •05		1.72		•28	•15 • 34	.10 .30	•	.85 T	• 15	*		• 02	* • 14	.04	T					.05	1.70
NAPOOPOO 28 NAULU FOPEST 38.6 NIULII 179 OOKALA 223 OPIH1HALE 2 24.1	A	2.17 4.45 7.58 8.86 2.73	* .69 1.78	.63 1.61 .42 .10	* T * •21 •05	* 04 2 • 52 • 89 • 21	1.49	.38 .47	* * T	* 40 * 14	1.24 .04 .11 .21	• 11	.07	1.66 1.70 2.82	.04	e •16 •12	* •42 * •21 •06	.24 T .48 .22	* *09 *11	.13 .3 .5	* T	.03 .21	.07		•02 •42	n T		•05		.04	.01	.04	•02
OPCHIO LANO EST 91.5 PAAUHAU 217 PAHALA 21 PAHOA 65	A	14.34 8.29 11.84 1.28 9.84	.06	.10 .65	.20 .15	1.12	2.28 2.54	7.94 .12 .28	* 01 • 02	• 11 •09	* •36 •57	* •06 •03	.47	2.95 4.00 .78 3.10	3.61 .05 .07	• •03	.03 .05	.11	.36 .06	.17 .17	.01 .04	.10	•	* 02	*	.01	•	.17	.05	•07	• •12 •35		
PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140A PEPEEKEO MAKAI 144 PIIHONUA 89	A	5.00 9.39 12.43 8.67 20.00	2.06	* 39 • 49 • 44	.47 .35 .27		* 1.27 2.64 1.33	.49 .41 .57	.01		.20 .78	• 01 • 03 •	.11	2.00 2.11 2.38	.02 .01		• • 09 • 73 • 11	.71 .31 .22	.73 .05	.70 1.04 .21	.10 .09 .11	.08 T		.01 .05	* •79 •01					.05	* T T		5.00
POHAKULOA 107 PUAKO 95A PUU KAPU 192.1 PUU KIME 120 PUU LAAU 102.1	AAAA	1.90 1.99 6.35 8.26 1.61	*02			:	*		:	:	:	*	:	1.01	1.20	.88	.01 .08		:				:	*		:					* *	6.35	8.26 1.61
PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82 PUU WAAWAA 94•1	A	1.80 4.64 9.24 4.19 1.94	* * * 92	* * * •48 T	.15	# 2.65 .05	* 2.90 .30	.24 .23	* * * •05	* * •01	.30 .12	*		2.00 1.17	:	* * *	* * * * * * * * * * * * * * * * * * * *	.08 .15	.10 .01	.65 .20	.02 .06	**	• 02	.07	* *12 *01	•	:	*		1.80	• 13		•03
SAODLE POAO 1 84 SOUTH POINT COPPAL 3 JMIKOA 118 JPOLU POINT USCG 159.2 (ALAKEA SCO 88.2	A	14.66 1.11 13.43 3.89 12.34	.22 .10 2.53	* *10 1.23		.57	* 1 * 4.13 .68 2.80	.33	* * • 05	e e •09	* 1.60	e • 05		3.54 1.89	.17	* 1.01 .07	* * * * * * * * * * * * * * * * * * * *	.07	.24 .02	.03 .73	* •01	.08	• 10 • 10	.11	• 13	•	۰	* • 05 T	.10	•	e T	.13	• • • • • • • • • • • • • • • • • • • •

## SUPPLEMENTAL DATA

		(	Win Speed -		)		Relati	ve hum		rages -		Numh	er of d	ays with	precipi				nset
Station	Resultant Besultant Speed Average Fastest mie Direction diastest mile						150 2 Am	TH MERI 8 AM	DIAN TI 2 PM	мЕ 8 Рм	Trace	.0109	.1049	50-99	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO WB AIRPORT	27	1.2	8.7	23	ε	12	77	72	67	76	3	4	8	4	1	1	21	47	6.1
HONOLULU WE AIRPORT	6	5.8	9.3	34	NE	10	81	82	61	74	12	7	3	0	٥	0	22	50	5.7
KAHULUI WH AIRPORT	6	7.8	11.3	30	NE	10	78	78	60	73	11	8	2	٥	1	1	23	66	5 • 6
LIHUE WE AIRPORT	4	6.1	11.3	27	NE	U 3	83	81	71	79	6	9	9	0	2	0	26	46	6.7

																Day (	Of Mo	onth															ag
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
ISLANO OF KAUAI																																	
KANALOHULUHULU 1075	MAX MIN	64 54	65 53	65 55	61 52	56 48	55 48	48 47	59 46	58 48	58 47	56 50	55 49	62 41	61 45	63	68 43	65 46	67 48	67 49	69 49	68 51	65 47	67 42	67	61 53	62 50	65 45	64 48	60 48	65 53	62 46	62.2
KILAUEA POINT 1133	MAX	78 70	77 67	80 68	76 64	75 62	74 61	74 61	73 61	74 61	74 61	74 61	71 62	74 61	76 61	77 61	77 60	77 68	77 69	78 66	78 64	80 63	79 68	79 65	82 63	78 61	78 64	77 65	82 66	81 66	8 1 66	76 66	77.0 63.9
LIHUE WB AIRPORT	MAX	76 70	77 70	75 69	73 65	71 63	74 61	74 60	74 65	73 67	72 67	73 65	73 61	74 58	73 62	75 60	75 62	76 63	75 69	76 68	76 67	76 66	76 63	77 60	78 66	74 63	73 62	77 62	79 62	76 64	75 65	75 63	74.9 64.1
MAKAHUENA POINT	MAX	79 71	80	78 70	78 66	75 65	74 64	77 63	75 64	77 67	77 65	75 70	75 62	77 62	81 63	77 64	77 64	77 67	78 66	77 72	79 67	79 67	80 72	78 66	84 68	83 68	80 65	8 I 65	83 64	82 67	80 60	80 68	78.5
MANA 1026	MAX	85 62	84 61	84 61	83	80 66	76 57	78 57	80 58	80 58	78 56	80 56	78 59	81 59	78 61	78 60	79 60	81 59	82 63	82 62	81	80 59	82 58	8 2 5 9	82 67	79 64	75 64	78 64	79 65	8 2 6 0	83 59	76 63	80.2
NIU RIOGE 1035	MAX	79 59	80 58	80 59	80 59	73 53	71 54	73 56	74 55	77	76 53	78 55	78 56	78 55	77 56	75 57	78 56	78 58	79 55	79 56	80 59	80 60	79 60	79 58	78 59	74 61	76 60	77 60	79 60	78 60	78 60		77.4
WAIAHI LOWER 1054	MAX M1N	75 66	75 60	76 60	71 58	70 58	72 58	75 52	75 60	71 58	71 58	70 60	74 58	77 53	72 58	73 57	77 53	76 53	76 62	76 61	76 62	76 62	77 61	77 55	80 67	80	73 60	75 55	80 59	77 59	77 60	76 58	75.0 58.7
ISLANO OF OAHU																																	
EWA PLANTATION 741	MAX MIN	8 l 69	81	79 66	76 65	74 61	77	79 59	75 61	75 62	75 64	74 65	80	80 58	76 59	82 61	82 60	81	82 63	80 65	80	83 65	81	8 2 5 9	8 l 60	78 66	8 2 6 2	82 61	8 2 6 2	85 62	8 2 6 4	79 65	79.5
HONOLULU WBAP 703	MAX	8 1 7 1	81	78 68	76 67	75 64	76 63	79 59	76 61	77	74 67	76 66	79 60	79 60	75 62	80 63	84	82	83	81	81	83	81	80 61	82	80 69	82	81	81	84	82	81	79.7
HONOLULU SUBSTA 704	MAX	79	78 68	77	74	72 64	74 64	76 62	73 65	73 67	72 68	72 65	78 60	76 65	73 66	79 63	78 67	79 69	79 70	77	77	79 70	78 68	78 67	79 73	77 68	79 68	79 68	79 67	82 68	79 69	80	76.9
KAHUKU 912	MAX	78 68	80	80	81	81	69			70 63	75 67	73 64	78 60	80 56			78 56	78 59	78 67	78 67	76 67			78 59	78 63	85 65	76 63	78 61			79 60	80 62	77.7
KANEOHE MAUKA 781	MAX	77	78 67	78 67	72 67	72 62	73 62	75 63	78 65	74 66	74	72 67	69 64	77 61	78 63	74 63	78 64	79 65	78 61	77	75 67	77 65	78 66	78 65	80 63	79	73 66	75 65	76 64	80	81	80 67	76.3
MAKAPUU POINT 724	MAX	75	76 69	74	75	73	70	74 64	74	71	73	71	70 63	74 65	72 65	69	73	78 67	73	75 68	73	73	76 68	78 68	79 70	76	75 66	73 68	78 68	78 66	77	75 67	74.2
OPAEULA 870	MAX	77	75 69	75 67	72 65	70 62	73 61	75 63	73 63	75 58	71	68	68	77 56	76 61	76 57	76 57	79 57	76 59	74	69	79	75 59	75 57	77	79 62	72 58	75 59	79 59	78 59	79 60	74 62	74.7
PRI WAHIAWA 820.2	MAX	78	77	78 65	76 64	73	71	75 58	74 58	76 57	74 61	72 62	73 59	78 54	73 55	79	79	79 59	79 61	79	74	- '		79 55	80	79	76 60	78 58	81	82	82	79	77.0
WAIALUA 847	MAX	78	78 63	76 66	80	74 58	73 57	75 57	76 60	75 60	74 56	72 63	75 59	77 55	78 56	76 59	78 60	79 56	80	79 60	76 62	78 63	80 61	81 58	81 58	83	75 60	77	78	80	82	81	77.6
WALKIKI 717.2	MAX	83	81	83	81	77	73 58	80	82	76 65	78 65	73 65	75 58	82 58	81	74	83	84	82	83	81	84	83	83 59	83 65	85	81	84	83	83	82	83	80.8
	Edia	1.	0,	00	0 4	0,5	,,	24		0,5	0,5	0,5	20	,,	02	00	79	62	68	01	66	03	01	29	6,7	01	02	01	02	03	02	04	03,0
ISLANO OF MOLOKAL																																	
MOLOKAI AP 524	MAX	79	77 65		73	71 64		77 63	75 66	73 64	72 64	72 63	71 64	75 62					76 65	76	74	76	75	80	79		73			79	81		75.5
	FILM	70	63	00		54	02	6.5	06	04	04	03	04	02	63	65	04	67	09	68	65	69	69	64	64	64	65	64	64	65	04	05	65.1
ISLANO OF LANAI																																	
LANA1 CITY 672	MAX	74	74	70	69	68	70	71	69	70	68	68	75	77	71	74	73	71	70	72	74	72	72	74	72	69	73	75	73	76	78	74	72.1
	MIIA	D#	04	D-4	63	80	ь	21	39	28	60	28	PI	28	01	60	59	63	01	60	61	59	58	60	63	91	60	61	60	29	60	62	60.5
ISLANO OF MAUL																																	
HALEAKALA RS 338	MAX	58	56	55	53	59	56	55	60	59	58	47	45	55	52	55	53	54	57	63	69	69	66	66	64	62	52	57	57	53	66	60	57.8
HALEAKALA SUMMIT 338,4	MIN	45	44	45	42	49	51	50	53	53	44	32	34	34	34	36	40	40	50	50	56	53	56	57	53	42	42	46	56	54	54	52	40.3
HANA AIRPORT	MIN	76	80	80	80	71	74	75	76	76	75	74	77	78	78	77	76	80	80	77	77	78	79	77	78	80	75	38 79	80	80		82	34.3 77.5
KAHULUI WB AP	MIN	80		78	72	74	59 75	76	79	76	68 76	74	70 75	78	79	77	79	80	67 79					65 83			65 75	62 78	61 79	63	63	80	78.0
KAILUA 446	MIN	73	74	75	67 75	75	75	75	75	75	75	75		5 8 75	76	62 75	76	69 76	77	69 76	76	70 78	77	77		80				59 80		81	76.6
KULA SANATORIUM 267	MIN				69	65	52 66	65	65	70	53 71	64	54 67	68	66	69	54	58 68	58 70	59 69	58 68	59 68	59 67	58 69	58 73	58 78		58		58 70			57.2
LAHAINA 361	MIN	85	53 84	85	53 84	48	48 80	48	48	48	50 79	50 76	77	80	50 80	5 2 8 0	54 81	54 82	54 84	54 85	52 84	53 82	52 83	52 82	53 83	83	58 72	55	52	53 82	54		52.3
wAILUKU 392	MIN	80	61 80	65 79		64	54	56	64	59	60	63				58	58	59	62	61	61	60	59	59	60	67	65	63	62	60	63	65	61.0
	MIN				64																						64						

Continued									D	ΑI	LY	T	EM	PE	ER.	T	UR	ES	5												WAII JANU.		1967
C) II																Day	Of M	onth															96
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
																														-			
ISLAND OF HAWAII																																	
HAINA 214	MAX	80 65	71 60	77 62	78 62	67 57	66 55	72 54	75 56	75 60	72 57	70 56		76 54	76 56	73 60	75 55	73 62	75	74 62	75 61	75 58	75 56	74 58	78 58	80	82 59	77 58	78 59	77 57	79 62		
HAWAII VOLCNS NP HO 54	MAX MIN	65 52	60 51	64 52	64 53	60 50	59 46	64	68	66 46	62 46	57 46	56 42	67 43	65 48	64	68	68	62	66	67	65	68	67	69	70 52	71 48	70	71	69	68	69	65.5
HILO W8 AIRPORT	MAX	79 67	80 66	79 67	76 67	70 64	76 60	78 59	78 60	76 70	75 68	73 63	84 59	79 58	81	80	80	78 65	80	80	82	82	79 63	82	89	80	83	85 64	83	82	85 62	8.2	
KAINALIU 738	MAX	78 62	75 60	75 59	76 59	75 57	73 55	74 54	74 56	76 57	77 56	73 56	74 54	73 55	75 57	76 59	78 58	77	78	75 62	76 60	75 62	77	77 58	78 61	80	78 59	78 57	79	78 59	79 60	78	76.3 58.3
KAMUELA 192.2	MAX	74 58	67 57	69 58	67 56	64 54	62 51	67	73 43	66 46	63 50	62 50	62 53	70 42	70 45	71 51	72 53	72 58	69	69	67 57	70 56	72	75 50	77	74	72 47	76 46	75 48	76 47	76 50	77	70.2
KAMUELA AIRPORT	MAX MIN	72 54	72 57	69 58	69 51	65 54	64	66	71 45	70 51	66 46	66 46	60	68	70 49	69	69 53	72 61	70 50	69	69 59	70 50	70 49	71 57	73	72 53	71	74	73	73	76 51	75 54	69.8
KEAAU 92	MAX MIN	78 63	78 63	78 63	78 63	75 61	6 8 5 9	77 58	77 58	77 58	78 61	73 60	70 57	83 58	79 59	79 59	79 59	80 61	77	78 62	77 62	78 61	78 61	78 61	78 62	85 59	81	83	83	83	83	82	78.4
KOHALA MISSION 175.1	MAX	76 67	76 65	76 65	75 65	67 61	68	73 58	76 59	76 61	73 66	72 61	71 58	76 58	76 60	75 59	77 61	76 62	75 67	75 66	75 65	76 64	76 63	76 61	78 62	80	78 63	80	81	79 62	79 62	79 63	75.7 62.4
KONA AIRPORT 68.3	MAX	81 68	8 1 6 7	81 67	82 67	82 64	82 63	80 62	80 60	79 60	80	79 61	79 61	80 60	78 60	79 61	79 60	81	81 62	80 61	79 62	80 62	81 61	82 63	81	81	81 61	82	82 62	82 63	81	81	80.5 62.1
KULANI CAMP 79	MAX	62 46	61	61 48	60 48	57 47	55 38	5 9 3 4	61 37	62 36	63 38	53 39	56 38	5 9 3 8	62 37	64 38	60 41	62 42	62	60	61	61 36	60 36	63	64 45	69	61	68	66 46	66	65 39	66 45	61.6
MAUNA LOA SLOPE 08S	MAX	45 33	44 31	48 33	45 29	47 29	50 29	50 30	52 31	46 27	38 27	38 22	35 22	42	38 28	40 29	40 27	46 32	51 36	51 36	56 35	54 36	50 30	52 34	50 31	51 32	53 36	54 34	54 34	55 36	50 32		47.5
MOUNTAIN VIEW 91	MAX	71 61	71 58	72 59	72 60	68 57	63 54	71 50	74 52	72 58	70 55	67 54	64 52	77 52	77 53	73 60	76 57	75 55	70 58	73 58	73 58	73 56	75 59	70 55	75 57	81 56	80 56	80 55	80 54	79 57	79 58	78 56	73.5 56.1
NAALEHU 14	MAX	78 61	79 62	80 63	80 62	77 64	77 59	77 59	77 60	78 60	78 59	77 58	77 59	78 60	78 60	78 60	81 61	77 64	78 67	78 65	78 64	78 64	78 63	78 63	77 64	79 62	81 65	80 63	80 63	80 64	80 64	80 66	78.5 62.2
OOKALA 223	MAX	78 67	79 65	79 64	79 64	72 61	69	75 56	75 58	75 63	74 60	74 60	70 59	77 58	76 61	78 63	75 60	75 61	76 66	77 65	77 66	77 64	77 65	77 63	78 62	77 63	82 64	81	82	80 64	80 65	82	76.9 62.6
OPIHIHALE 2 24.1	MAX	74 58	74 57	74 57	73 61	72 55	72 55	73 53	73 53	77 54	73 54	68 52	73 53	71 56	69 57	76 55	75 57	75 58	76 58	75 59	76 54	74 55	75 56	76 56	81	79 57	77 56	77 57	75 57	80 58	77 58	75 61	74.7 56.2
PAHALA 21	MAX	79 63	79 60	83 61	81	77 60	76 55	77 55	77 55	77 59	78 56	78 56	81 55	78 56	80 58	76 60	79 59	76 59	77 61	77 58	78 59	82 59	85 58	77 59	78 58	79 58	76 60	79 60	81 61	80 61	80 59	79 60	78.7 58.6
UPOLU POINT USCG 159.2	MAX M1N	79 67	78 67	79 67	78 67	78 63	78 60	75 56	80 66	7 9 6 2	76 58	74 68	76 60	78 62	81 64	77 68	8 1 6 1	80 65	78 67	78 65	78 68	78 65	78 65	78 64	83 64	82 71	79 68	78 66	8 2 6 8	79 69	83 70	82 68	

#### EVAPORATION AND WIND

Ch-M																Day	Of M	onth															18 L
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
* * * ISLANO OF KAUAI																																	
LIHUE W8 AIRPORT	EVAP W1ND MAX M1N		182	205	279 75	259 72	151 71	97 78	61 79	194 79	238 75	260 72	231 71	•12 77 79 58	60 80		.10 51 80 59	48 83	140	171 80	111	93 82	•18 87 82 65	55 87	86	63 78	•30 59 77 61	.12 53 88 60	.10 43 79 61	.15 54 86 64	•21 42 82 65	46 79	5.77 3704 79.5 62.2
1SLANO OF OAHU																																	
HONOLULU OBSERV 702.2	EVAP WINO MAX MIN		48 84	82	50 81	.17 50 79 60		•11 24 78 60		•12 42 77 59	. 20 54 77 58	•23 70 75 59	.08 38 68 60	•10 23 83 60	20 83	.04 6 70 62	.12 12 81 61	85	37 83	50 82	37 82	24 80	.18 24 87 63	.18 29 86 62	34 87	.15 42 88 68	.14 23 81 64	·11 19 82 63	•12 17 88 65	•15 17 90 65	•20 33 88 65	25 86	4.37 1011 81.6 62.6
* * * ISLANO OF HAWAII																																	
HILO #8 A]RPORT	EVAP WIND MAX MIN		61 82	93	114	.11 83 73 62	77 80	88		212	222 72	.26 169 61 59	•39 99 81 56	65 81	51 72	-11 60 77 62	.10 63 80 61	41 77	79		•20 56 79 62		•00 45 75 62		.19 84 84 63	. 20 78 83 59	.18 61 86 62	65 86	.16 64 85 64	.21 76 83 65	.18 70 84 61	56 79	5.02 2557 79.0 61.7

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 89° ON THE 24TH AT HILO W8 AIRPORT, MAWAII

LOWEST TEMPERATURE: 20° ON THE 11TH AT HALEAKALA SUMMIT 338.4, MAUI

GREATEST TOTAL PRECIPITATION: 16.54 INCHES AT N WAILUA OITCH 1051, KAUAI

LEAST TOTAL PRECIPITATION: 0.46 INCH AT MAUNA LOA SLOPE 08S, HAWAII

GREATEST ONE-OAY PRECIPITATION: 10.50 INCHES ON THE 14TH AT INTAKE WAINIHA PC
1086, MAUI

TATION	ON X	DISTRICT	AG.	5	2	E		TABL.	ES	
	INDEX	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	-	PRECIP.	TH	OBSERVER
OF LANA!	3130 01	LAHAINA	1 20	0 53	157 00	1640		w I	c	DOLE COMPANY
.E 684 A	5301 01	LAHAINA :	1 20	0 47	156 55	1620	7 A	W1	c	DOLE COMPANY DOLE COMPANY DOLE COMPANY
676 A CUA 685	6012 01	LAHAINA	1 20	0 46	156 55 156 52	1135		¥ I WM	C	DOLE COMPANY DOLE COMPANY
OF MAUI	0175 02	HANA	2 20	0 37	156 20	2060		VAP		ULUPALAKUA RANCH
477 A.	0790 04	LAHAINA MAKAWAO	1 20	0 57	156 18	2980		7A		MAUI PINEAPPLE CO.  MAUI PINEAPPLE COMPANY U OF MAWAII EXP STA HALEAKALA RANCH CO
A PS 338 A SUMMIT 338.4	1004 02	MAKAWAO MAKAWAO MAKAWAO	2 20	0 46	156 15	7030	8 A 8 A	8 A 8 A	C	U OF MICH MT HKALA OBST
ILE 423 POKO 485	1075 OI 1086 OI		1 20	0 55	156 21 156 21	320		5.4		MAUI PINEAPPLE CO. HAWAIIAN COM + SUS CO
RPOPT 1 281	1125 01	HANA HANA	1 20	0 46	156 DI 156 DI	61 325		11A 7A	C	HARRY MASEGAWA HAWAIIAN AIRLINES KOALI RANCH HALEAKALA NATL PARK RG:
U 480 A	1882 04 1887 04 1914 04	LAHAINA LAHAINA LAHAINA	4 20	0 58	156 36 156 39 156 38	870		MO 6.A		MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO
SLE 387.2	2208 03	WAILUKU	3 20	0 53	156 33	6280 1100 2000		MO W I	c	HALEAKALA RANCH CO STATE DIVISION OF PARK PIONEEP MILL CO LTO
WS AP P	2572 93 2630 01 2679 01	WAILUKU WAKAWAO MAKAWAO	1 20	0 51	156 16	4.8 2520,	417	MO	c	U S WEATHER SUREAU E VAUI 19P CO LTO E VAUI 188 CO LTO
INTAKE 375 A	3433 04	HANA MAKAWAO	2 20	0 39	156 38 156 08 156 23	1020		W1	c	PIONEER MILL CO LTO KAUPO PANCH HAWAIIAN COM + SUS CO E VAUI IRP CO LTD
RU BEACH 260.2	4193 02 4489 03	MAKAWAO WAILUKU	2 20	0 42	156 10 156 27	20		6 · 7 A	c	E VAUI IRR CO LTD  A. L. CORELL  HAWAIIAN COM + SUG CO  KIPAHULU CATTLE COMPAN
	4887 04	LAHAINA	4 20	C 54	156 35	5788				S MAUL PINEAPPLE CO
361 360 INTAKE 376 A	5006 02 5177 04 5404 04	MAKAWAO LAHAINA LAHAINA	2 20 4 20 4 20	0 42	156 22 156 41 156 37	3004 45 1280	7.6	VAR	c	RULA SANATORIUM PIONEER MILL CO LTD PIONEER MILL CO LTD
OKO VILLAGE 372A REP 442 A INA 466 A	5408 04 5665 01 5715 04	LAHAINA	4 20	0 51	156 15 156 40	1240		MO 7A		PIONEEP VILL CO LTD E MAUT IPP CO LTD PIONEER MILL CO LTD B S CF A COUNCIL
FLO 60-497 A	6645 04	LAHAINA	- 2:	1 02	156 36	340		VAR	-	MAUL CO WATER DEPT
296 GULCH 377 A	7059 04 7066 04 7194 01	LAMAINA LAMAINA MANA	1 20	C 49	156 38 156 36 156 07	800 1260		70 MO 6A	ļ.	PIONEER MILL CO. PIONEER MILL CO LTD E MAUI IRR CO LTD
ULU 259.2 A	7674 02	MAKAWAO	2 20	0 41	156 38	3570 485		WI 7A		HAWAIIAN COM + SUG CO KAUPO RANCH CO. HASEROT PINEAPPLE CO.
4GA 2 343 A	8336 01	HANA	1 20	n 50	156 13	6150		MO		WAILUKU SUGAR CO STATE DIV OF FORESTRY F MAU! IRP CO LTO
396	8543 03 8553 01	WAILUKU HANA	1 2	0 53	156 27 156 03	2500 60 2160			ı	PIONEER MILL CO LTD MAWAIIAN COM + SUG CO S EAST MAUL 1RPIGATION (
FS 261.3 A	8742 03	MAKAWAO MAKAWAO	3 20	0.66	156 23	1310		VAR MO		HAWAIIAN COM + SUG CO KADNOULU RANCH HALEAKALA RANCH CO PIONEER MILL CO LID
IIIA RANCH 250	8760 02	MAKAWAO LAHAINA	2 2	1 39	156 24	1900		84		ULUPALAKUA RCH CO LTD PIONEER MILL CO LTD WALLUKU SUGAP CO
/ALLEY 482	9315 04	WAILUKU	1 20	C 57	156 32 156 12	300		6.A W.M		WAILUKU SUGAR CO E MAUI IPR CO LTD MAUI COUNTY WIR DEPT
393 IKI 348	9376 03	HANA	1 2	C 52	156 31	2630	6.0	64		WALLUKU SUSAR CO EAST MAUL IRPIGATION C ST. ANTHONYS BOYS SCHO
RANCH 256 A OF HAWALL			2 21	2 38	156 12	220		00		HALEAKALA PANCH CO
75 A	0190 01	N KOHALA	1 20	C 10	155 43	522° 1870		MQ N I	1	GREENWELL PANCH KOHALA DITCH CO LTD
142 140 52 a	0905 02 1033 03	HAMAKUA S HILO X AU	2 1	9 54	155 28 155 08	461	7	7A 7A	C	KOMALA DITCH CO LTO HONOKAA SUGAP CO PEPEEXEO SUGAP CO. HAWAII NAT PARK
A   117 A KU     11 A /OLCNS NP HQ 54	1060 01 1065 02 1303 02	HAMAKUA HAMAKUA KAU	1 14	9 56	155 24 155 28 155 16	5770 9220 3971	8.6	MO BA	c	KUYATAU RANCH CO STATE DIV. OF PARKS HAWATI NAT PARK
AIPRORT R	1492 02	S HILO	2 11	9 43	155 04	31	M1 o	M GIM	I DC	KOHALA SUGAR CO  U S WEATHER BUREAU STATE DIV OF FORESTRY
8 BEACH 68 A	1562 04 1665 04 1701 02	N KONA S KONA N HILC	4 1	9 37 9 27 9 56	155 59 155 53 155 09	14		7 A		WARIOUS PANCH HANDS MRS MALAE W HUA PERFEKEN SUGAR COMPANY
181.1 A HAUKA 138	1960 02 2047 04	N KOHALA S HILO N KONA	2 1 1	0 09 9 51 9 40	155 44 155 09 155 53	810 1100 6250		MO	c	COMALA DITCH CO LTO PEPEEKSO SUGAR CO. STATE DIV OF FORESTRY
22A A	2156 04	N KONA KAU	4 1	9 45	155 59	1960		6 A 7 A		STATE DIV OF FORESTRY HUFHUE RANCH HUTCHINSON SUSAR CO
736	2512 03	N KONA	3 1	9 08	155 46	1340 3700 1500	7 :	7.6	c	CAPTAIN COOK COFFEE CO KARL EMBREY KONA EXPERIMENT STA
AIRPORT	3078 05	S KOHALA	1 20	0 00	155 40	2670 2665 2140	6	64		MAWAIIAN RANCH CO RARKEP PANCH MAWAIIAN AIPLINES HAWAIIAN RANCM CO. IN
ANDING 935 A	3510 02	S M1LO	2 19	9 30	154 52 155 ng	1123		VAP	c	BOAPO OF WATER SUPPLY SMIGEO MASUYA
	3872 02	RUNA	2 19	9 38	155 02	280	8 -	1	c	HONOKAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COMPAN VISS AMY GREENWELL
U CAMP 124.2 81.2 RESERVOIR 176.1A	4098 02	N KOHALA	2 14	0 55	155 21	5280 3640		W1 7A	6	STATE DIV. OF FORESTR' KOHALA DITCH CO LTO KOHALA DITCH CO LTO
A + F 6 A 2 A 1794 A	4625 C3 4632 O2 4670 OI	S MILO N KOMALA	2 10	9 44	155 38	1925 1490 309		WI BA		STATE DIV OF FORESTRY MAUNA KEA SUGAR CO. KOHALA SUGAR CO
115510N 175+1 OWER 196 A	4680 01	N KOHALA	1 20	0 13	155 48	960 537 720	8 -	7A 8A	-	KOHALA SUGAR CO K. LYMAN BOND HONOKAA SUGAR CO
PRORT 68.3 222 LE HIC 199	4764 04 4815 01 4928 01	N KONA HAMAKUA HAMAKUA	1 20	9 39 0 02 0 07	156 01 155 21 155 35	15 840 980	В	8A 6A 6A		HAWAIIAN AIRLINES HAMAKUA MILL CO HONOKAA SUGAR CO
AUKA 76 A	5011 02	S HILO N HILO	2 19	9 33	155 IA	300 5170 8300	8 4	6A 88 WI		HONOKAA SUGAR CO ST DEPT OF SOCIAL SER U S WEATMER BUREAU
FLO OFF 191.1	5260 01 5330 04	S KOHALA N KONA	1 20	0 01	155 41 155 58	2615 1530		-	+	ST DEPT OF SOCIAL SER STATE DEPT OF L + N RE KONA EXPERIMENT STATIO
E PARK 66.1	5460 02 6134 03 6198 05	PUNA KAU HAMAKUA	2 19 3 19 5 19	9 29 9 07 9 32	154 54 155 50 155 35	650 1760 11146		8 -	-	STATE DIV. OF PARKS STATE DIVISION OF PARK U S WEATHER BUPEAU
EN 147.1 8 A	6268 04 6270 01 6407 03	N KONA N KOMALA NAU	4 19	9 37	155 50	1380		VAR.		KONA EXPERIMENT STA KAHUA RANCH MAWAIIAN RANCH CO PUNA SUGAR CO
14 A	6588 03	KAU	3 1 9	9 04	155 35	673	8	81		HUTCHINSON SUGAR CO
25 C 25 C 25 C 25 C 26 C 27	AU HARGOR 658 A TY 672  TY 672  A 1669  A 676  A 76  A 77  A 78  A 78  A 79  A 79  A 8 8 5 4 34 A A A A A A A A A A A A A A A A A	AU HARGOR 6-58 A   A   A   A   A   A   A   A   A   A	AU MARGOR 5.58 A 3 Medi   01 CAMAN   NA   6 C	AU HARDOR 0.56 A 3 No.61 OI CAMAJINA 1 2 2 6 6 6 9 2 7 6 6 0 1	AU MARDOR 958 A 3661 01 LAMANAM 1 1 20 45 6 6 6 6 4 5 5 10 1 LAMANAM 1 1 20 45 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	AU THARDOR 050 A 3 No. 1 01 CAMAINA 1 1 20 05 1 150 05 1	AUTHARDOR 558 A 1961 01 LAMAINA 1 12 0 47 157 00 30 100 100 100 55 100 00 100 55 100 00 100 55 100 00 100 55 100 00 100 55 100 00 100 55 100 00 100 55 100 00 100 1	AU HARDRO 658 A 1961 DI LAMAINA  1 20 47 177 00 130  1 20 50 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MARCH   1967	AL HARDON SS A   200   01   CAMADAM   1   20   27   15   20   27   27   28   28   28   28   28   28

CONTINUED				_							STATION	INDEX											HAW JANUARY 19
STATION	X NO.	DIVISION	DISTRICT	AINAGE ;	ATTUDE	ONGITUDE	ATION		SERV TIME TAB				NO.	NO		GE	TITUDE	UDE	ATION		SERVA TIME A	ND	andough 1
	INDEX	DIVI		DRAIN	LATI	LONG	ELEV!	TEMP.	PRECIP.	SPECIAL	OBSERVER	STATION	INDEX	DIVISIO	DISTRICT	DRAINAGE	ТШТ	LONGITUDE	ELEVAT	TEMP.	PRECIP.	TH	OBSERVER
ISLAND OF HAWAII MAPOPORD 28 VAULU TOREST 38.6 NIULII 179 OOKALA 223 OPHINALE 2 24.1 OPHINALE 215 91.5 PAAULU 217 PAAULU	A 7643 7711 7166 7185 7204 7312 7421 7421 7421 7421 7721 8051 8051 8063 8186 8383 8 8383 8 8383	02 01 02 04 02 01 03 02 02 02 02 02 05 01 01	PUNA	2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19 19 20 14 20 01 19 16 19 34 20 05 20 03 19 12 19 30 19 22 19 47 19 51 19 45 19 59 20 02 19 54 47 19 59 19 54 47 19 59 19 59 59 20 02 19 54 47 19 59 19 19 19 19 19 19 19 19 19 19 19 19 19	155 45 155 17 155 53 155 00 155 26 155 22 155 29 154 57 155 28 155 06 155 06 155 05 155 105	400 1400 75 430 1270 445 415 830 670 200 1400 1739 6511 2870 7750	7.A 7.A	WI VAR 6AA 7A 7A 6AA HO 7AA 6AA MO WAR 6AA MO MO MO		KONA EXPERIMENT STA HAMAII VOLCANDES NAT PH LAUPANCHME SUGAR CO HISS CLEDONARO BOARD OF MATER SUPPLY PAUPANCHME SUGAR CO HAWAIIAN AGR CO PUNA SUGAR CO, PAUPAN SUGAR CO, PAUPAN SUGAR CO, PAUPAN SUGAR CO, PAUPAN ERA SUGAR CO, PAUPAN ERA SUGAR CO, PAUPAN ERA SUGAR CO, PAUPANCHME SUGAR	PUU MALI 113 PUUOKUMAU 167 PUU 00 82 PUU 90 82 PUU WAAWAA 94,I SADOLE ROAD 1 84 SOUTH POINT CORRAL 3 S POINT TRACKING STA UMIKOA 118 UPOLU POINT USCG 159.2	8 8515 8548 8550 8555 8 8590 8 675 8679 8780 8830	01 02 05 02 03 03 01 01	N KONA MAHAKUA N KOHALA 5 MELO N KONA 5 MILO KAU KAU KAU HAMAKUA N KOMALA N KOMALA	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15	155 49 155 26 155 50 155 23 155 12 155 12 155 41 155 23 155 33 155 08 155 47	1	8.4	MO MO 7A 6A 7A WM WI	C	ORENVELL PRINCIP LUMAIAU PRINCIP LUMAIAU PRINCIP KOHANA DITCH CO LTO OTILINGMAN PARCH INC OTILINGMAN PARCH INC OTILINGMAN PARCH INC KURAIAU PARCH CO U S COAST GURD KAHAN PARCH CO KAHAN PARCH CO KAHAN PARCH CO KAHAN PARCH

TORAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO DYTRA-ISLAND DIVISIONS) LANAI: 1-(NO DYTRA-ISLAND DIVISIONS) MAUI: 1-NORTHERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL 4-WESTERN 5-CENTRAL 4-WESTERN 5-CENTRAL 5

#### REFERENCE NOTES

Additional information reparting the climate of Hawaii may be obtained by writing to ine Regional Climatologist, P. O. Box 3650, Honolubu, Hawaii, or to any Wealner Bureau Office near you. Additional precipitation data are constained in "MOURLY PRECIPITATION DATA HAWAII".

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are: Temperature in "F., precipitation and evaporetion in inches, and wind movement in miles, in "Supplemental Data" table directions entered in figures are tens of degrees, Resultant wind is the vector sum of wind directions and speeds divided by the number of observations,

OBSERVATION TIME: Data in the "Monthly Extremee"; "Daily Precipitation" table; "Daily Tempereture" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station index. The Station index above observation time in local standard time.

EVALOGRATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise those by footnote following the "Evaporation and Wind" table: Max and Min in "Evaporation and Wind" table refer to extreme of euterprature of water in pan as precorded during 24 hours ending at time of only

NORMALS for all stations are climatological standard normais based on the period 1931-1960,

STATION NAMES. Hawaii state key numbers are tocluded following station names in the several tables.

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of inle pu

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and ine Station index.
- No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- + And also on an earlier date or dates.
- ++ Highest observed one minute windspeed. This station is not equipped with an instrument to measure fastest mile data,
- . Amount included in following measurement, time distribution unknown.
- The letter "A" shown following station mass in "Climatological Data" table; "Daily Precipitation" table; and "Station Index"; indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous builetims for dates of measurement. Where gages are read only once month, measurements made on the first of a month are credited to the last day of the praceding month.
- J "Supplemental Data" table.
- M One or more days of record missing; if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage.
- T Trace, an asount too small to measure.
- V Includes total for previous month.

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- C in Special Column of Station Index indicates Recording Rain Gage Station. Hourly precipitation values are processed for special purposes, and are published later in the "Bourly Precipitation Data" Dulletin. If daily amounts are published in "Climatological Data" Dulletin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts published from the recording gage in the "Bourly Precipitation Data" bulletin.
- MO Gage read once monthly: usually on the last day.
- OC Gage readings at periode varying from a fee eeeke to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this sublication.
- SS Observation time is near sunset.
- VAR Observation time is variable
- Wl Gage read weekly or irregularly only.
- WM Gage read weekly and last day of month
- Thermometers are generally exposed in a shelter located a few feet shove sud-covered ground, however, this reference indicates inat the thermometers are exposed in a shelter located on ine roof of a building,

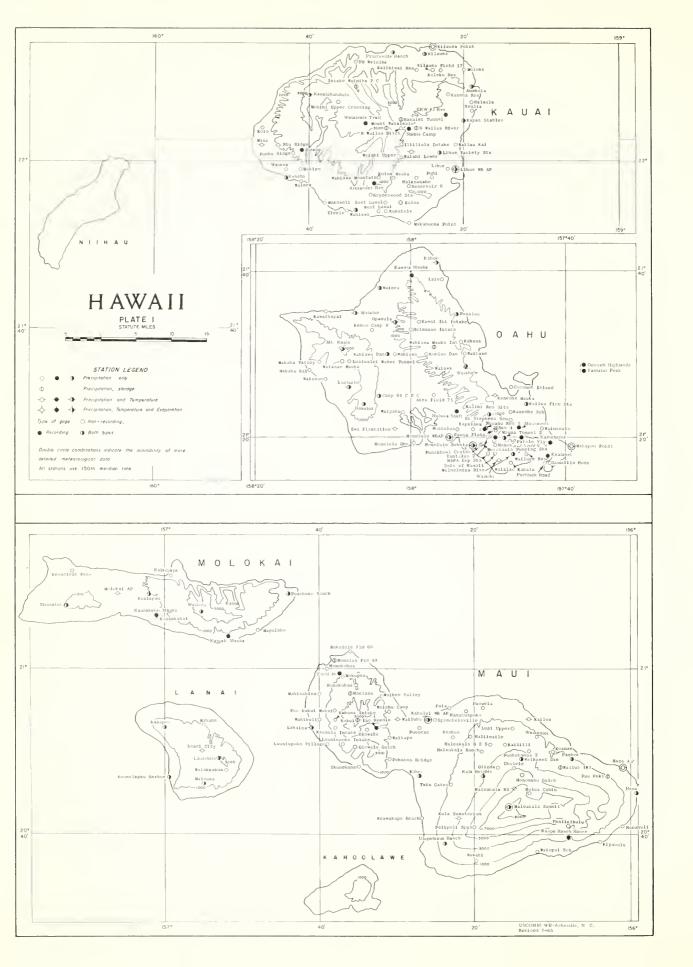
Stations appearing in the Index, but for which data are not listed in the tables, were eitner missing or received too late to be included in this issue.

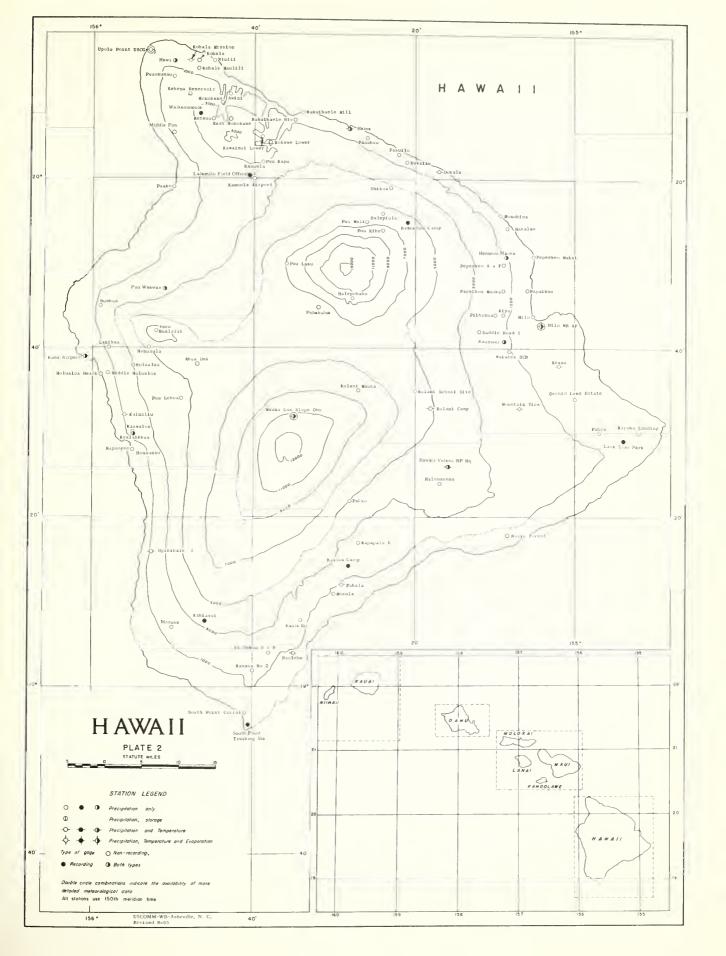
General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, MONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in ine publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Data, price 13 cents. These publications may be obtained from ine Superintendent of Documents at ine address shown above.

Subscription Price: 20 cents per copy, monthly and annual, \$2,50 per year, (Yearly aubscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402,

USCOMM-ESSA-ASHEVILLE-5/2/67-625









PATA

U. S. DEPARTMENT OF COMMERCE ALEXANDER B TROWBRIDGE, Acting Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION 6 1970

FEBRUARY 1967 Volume 63 No. 2

HAWAII

CLIMATOLOGICAL DATA

					Tem	perat	ure								_	-	AGP	Precip	itation					
										-	lo, af					_			Sno	w, Sleet		-1	0.0	f Day
Station		Average Maximum	Average	Average	Departure Fram Normal	Highest	Date	Lowest	Date	90° or Above	32° or X	32° or Below	-	Total	Departure	Fram Normal	Greatest Day	Date	Total	Max Dapth on Ground	Dote	.10 or More	.53 or More	100
ISLAND DF KAUAI																								
ANAHDLA 1111 KANALDHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELD 17 1135 KILAUEA POINT 1133	A A	78.3	48.3	72.2		70 85	25+	40 57		0	0	0	0	6.96 4.46 6.51 11.20 10.48		3.02	1.30		.0 .0 .0	0 0 0		6	4	
KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA DITCH 1D51 PH WAINIHA 1115	A R	77.0 81.4	66.5	71.8 72.0	1.1	80 86		60 56	4 28+	0	0	0	0	9.58 6.59 1.37 19.83 13.01	-	3.34 1.27 1.44	2.71 .57 5.05	16	.0 .0 .0	0 0 0		7 3	2 5	C
PUEHU RIDGE 1040 WAHIAWA 930 WAIAHI LOWER 1D54 WAIMEA 947	A	76.4	59.1	67.8		83	4	55	26+	0	0	0	0	2.88 3.10 15.52 2.30		1.16	1.53 5.55 .99	12	.0 .0	0 0 0		4 17 4	5 3	1
ISLAND				68.2										8.13		- 1			• 0					
* * * ISLAND OF OAHU																								
HDNOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEDHE MAUKA 781 KOOLAU OAM 833	R	81.2 78.2M 77.9	66.6 65.8M 66.8	73.9 72.0M 72.4	1.5 .4 1.2	84 80 83	9+ 8+ 9	62 59 62		0 0	0	0	0 0	1.73 2.53 6.11 6.26 6.53	-	.77 1.04 .96 2.51	.58 1.00 2.10 1.22	12	.0 .0 .0	0 0 0 0		4 6 11 15	2 2 4 4	Ì.
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 DPAEULA 870 PALOLO VALLEY 718		76•2 74•9	67.8	72.0	1.4	80	4 27+		28+	0	0	0	0	.89 5.10 10.42 5.13 13.52	-	1.57 .63 3.28 2.52	.32 2.05 2.46 1.35 5.30	27 15 13	.0 .0 .0			15	0 3 6 3 9	
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA DAM 863 WAIAHDLE 837 WAIALUA 847	A A	78.4M	60.9M	69.7M	•1	82	8+		27+	0	0	0	0	3.65 8.78 2.53 12.51 1.84		.61 2.97	1 • 20 4 • 95	12	.0 .0 .0	0 0 0 0		5	4	
WAIKIKI 717.2 WAIPAHU 750	A	82.4	65.5	74.0		85	9+		26	0	0	0	0	4.10 1.85		1.84	1.73		•0	0		6	3	
ISLANO			i	71.6										5.50					.0					
ISLAND DF MOLDKAI																								
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLDKAI AP 524	A	77.6	65.0	71.3		81	8+	59	26	0	0	0	0	4.71 3.25 2.33 4.55		1.07 .85 .75	.60 1.04		.0 .0	0		10		
ISLANO				71.3										3.71					•0					
ISLANO DF LANAI																								
LANAI CITY 672		74.2M	61.2M	67.7M	2.2	77	3	57	24	0	0	0	0	2.98	-	•75	.97	28	.0				2	
ISLANO  * * * ISLAND DF MAUI				07.07																				
HALEAKALA B E S 434 HALEAKALA RS 338 HANA AIRPDRT HDNOKDHUA 493 KAHULUI WB AP	A A R	60.5 79.4 80.1	42.2 66.1 64.0	51.4 72.8 72.1	.4	82		58	17+	0	0	0	0	7.44 2.83 5.40 3.82 2.13	-	.08	4.17 1.53 3.02 1.30	28 11 10	.0	0 0		9 8 10 3	1 2	
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	A	76.4 69.1 83.1	53.5 61.8	69.6 61.3 72.5	.2	74	10 10	49	22 21	0		0 0	0 0	8.47 22.30 4.40 2.09	-	2.00 2.89 4.53 1.79 1.43	.74 .73 .26	28 12	.0	0 0 0		17 8 3	1 0	
PAIA 406 WAILUKU 392		80.8M	64.4M	72.6M	1.3	85	5+	60	26+	0	0	0	0	2.25		1.31	•53	28	.0			7	1	
1SLAND				67.5										5.35					.0					

HAWAII FEBRUARY 1967

CONTINUED													_										
					Ten	perat	ture										Precip	pitotion					
										1	No. of	Doy	\$					Sno	w, Sleet		N	o. of	Days
\$tation		c	_		lom?					M	ox.	м	in,		raol l	Doy			d b		More	More	More
		Average	Average	Averoge	Deporture From Normo	Highest	Dote	Lowest	Date	90° of Abova	32° or Below	32° or Below	0° or Below	Total	Deporture From Normol	Greatest	Dote	Total	Max. Depth on Ground	Dote	.10 ar Mc	.53 or Mc	1.00 or A
* * * ISLANO OF HAWAII																							
	R	77.4 65.8 81.6	60.3 50.4 66.1	68.9 58.1 73.9	6 .2 3.3	80 70 85	27÷ 7÷ 6÷	46	21 4 21	0 0 0	0 0 0	0	0	4.35 8.16 10.35 4.59	= 2.57 = 2.09 = 2.59 1.88	2.42 1.45 3.47	12	•0 •0 •0	0 0 0		5 13 15	2 6	1 3 3
KAINALIU 73B		75.9	59.1	67.5		80	19+	55	20	0	0	0	0	3.71	•32	1.38	17	.0	0		8	2	1
KAMUELA AIRPORT KEAAU 92 KEHENA RESERVOIR 176.1	Δ	71.4 80.3	50.6 61.9	61.0 71.1	. 8		12+ 13+		22+	0	0	0	0	1.99 8.59 7.61	- 4.84	1.20 1.22 4.10	10	•0	0		16	9	1 1
KONA AIRPORT 68.3 KUKUIHAELE HIC 199		80.9	63.9	72.4		82	28+	62	27+	0	0	0	0	1.24 3.51	- 3.80	.75 2.15	13	•0	0		6	1	0
KULANI CAMP 79 PAHALA 21 POHAKULOA 107 PUAKO 95A PUU WAAWAA 94.1	А	62.8 77.5	44.0 60.0	53.4 68.8	•0	67 81			25 21	0	0	0	0	12.43 4.78 .00 1.82 2.44	- 1.81	2.96 2.53 .00 1.79	10	.0 .0 .0	0 0 0 0		12 6 0 1 7	8 3 0 1 2	6 2 0 1 0
UMIKOA 118 WAIAKEA 5CO 88.2														5.11 13.07	- 5.44	3.88 2.64		•0	0		13	1 7	1 6
15LAN0				66.1			ļ							5.51				•0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 88° ON THE 10TH AT LAHAINA 361, MAUI

LOWEST TEMPERATURE: 23° ON THE 21ST AT HALEAKALA SUMMIT 338.4, MAUI

GREATEST TOTAL PRECIPITATION: 25.40 INCHES AT PUOHOKAMOA 2 343, MAUI

LEAST TOTAL PRECIPITATION: .00 INCH AT POHAKULOA 107, HAWAII

GREATEST ONE-DAY PRECIPITATION: 7.68 INCHES ON THE 28TH AT WAIKAMOI OAM 336, MAUI

0.00	,	,																												HAWA FEBR		1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLAND OF KAUAI																		••		10	20	21		20	21	20	20		20	2-3	30	31
ANAHOLA 1111 A 8RYOESWOOD STA 985 A EAST LAWAI 934 A ELEELE 927 A HALAULA 1110 A	6.9 6.3 4.8 2.1 6.8	T	.81 T	T	:	•	.09 T .04 T	.06	.01	•03 •07	.15 .25 .35 .07	•		4.05 3.65 2.07 1.10 3.56	•18 •34 •03 •02	•18 •56 •05 •10	.74 1.07 .80 .71	.02 .22 .05	* * * * * * * * * * * * * * * * * * * *	:	.05 .28 .49 .06	.06 .19 .03		.01 .08 .06 .01	.03 .04 .06		•	.83 .03 .07 .03	T T			
HALENANAHO 1006 A HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 A KALIMIWAI RES 1131 A	12.9 2.5 17.2 14.4 12.5	3 .	• 04 •	.10	:	• 15 • •	•15 •05 •	•03		•12 •03 •	.54 .40 2.20 .32	5.00 4.59	2.02	9.86 .02 1.12 7.12	.07 .27 e	.73 e	.82 .54 1.88 1.71 2.21	.08 .20 *	.60	.40 	.23 .02 .72	.10 .10	•01	.13 .28 .10	.16	• 22	.10	.53 .50 4.00 .89	•20 •71 •04			
KANALOHULUHULU 1075 KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 KEKAHA 944	10.3 6.5 7.9		.30 .08 .10				•13				.18 .30 .35 .38	.63 * *	1.30	5.63 4.40 5.53	.03 T	.05 .15 .10	.52 1.02 .50 .72 .48	.03	.03 e e T	.03	.05 .59 .14 .07	.15 .08 .04		.05 .04 .04		:		1.27 1.95 .82 .98	•12			
KILAUEA 1134 A KILAUEA FIELD 17 1135 A KILAUEA POINT 1133 KOLO 1033 KOLO 4036 A	8.9 11.2 10.4 1.1 9.5	.07	.07 .28	.02	.25	:	.07 .19 .01	.02	.09	.06	.36 .36 5.41	2.13 .20	.34 .32	6.38 7.26 .40	.12 .07 .10	.16 .24 .78	.81 1.11 .62 .66	.01 .07 .04	.15	.19	.32	.02 .05	.07	.07	.01 .02 .01		•12	.41 .75	.03 .01 .08			
KOLOA HAUKA 994 A KOLOKO RES 1137 A KUKUJULA 935 A LIHUE VARIETY STA LIHUE 1020 A	12.5 8.9 4.9 7.8 7.6	6 7 3	.56 .06	.03	*	* 17	.09	•15 •07 •02 •22	•01	.16 .11	.36	* * * * * * * * * * * * * * * * * * *	•	8 • 1 5 4 • 50 4 • 12 3 • 31 4 • 72	•11 •20 •02 •02 •02	.31 .08 .01 .08	1.43 1.13 .18 .23 .68	.06 .17 .02	* * *10		.66 .45 .18 .06	.03 .03 .01 .06		.09 .12 .01 .14	.09 .10 .03 .04		:	.53 .83 .03 .58	.01 .03			
LIHUE W8 AIRPORT R MAKAHUENA POINT MAKAWELI 965 A HANA 1026 HOHIHI UPR CR055 1083	6.5 4.4 1.8 1.3	3	2.80		.20	.05 .01	.04		.04	T •05	2.71 .15 .20	.61 .65 .42 .23	.64 2.98 .34 .55	.03	T *	.11	.03 .10	T •01	.02	.04	.08 .03	•02	.03	T .03	.03	T •15	002	T •05	.02 .01			
MOLOAA 1145 A N'U RIOGE 1035 N WAILUA DITCH 1051 PH WAINIHA 1115 PRINCCVILLE RANCH 1117	6.6 1.8 19.8 13.0 9.9	9	.60			• • 01 • 12	•02 •21 •01	.30		.07 .21 .15	.27 .46 1.36 .33	9 931 9 5.05 2.96	.43	.23	.30 .63 .56 .28	.11	.71 .82 2.33 1.22 1.64	.01 .17 .01	• •12 •21	* .10 .16	.14 1.31 .24 .16	.06 .10 .13		.03 .28 .06 .12	.01 .14 .02 .09	• • 07	e .13 .16	1.13 .03 1.49 2.80 .56	.01 .27 .21			
PUEHU RIOGE 1040 PUH1 1013 A RESERVOIR 6 1004 A WAHIAWA 930 A WHIAWA MOUNTAIN 990 A	3.1	9 1 0 T		.07	:	:	.17	.06		.08 .08	.90	. 48  	1.53	6.18 8.62 1.80	.05 .07 .07	.02 .05 .10	.73 .87 .67	.05 .18 T		*	.26 .40 .15	.09		•07 •12 •02	.04 .11 .02	:		.14 1.05 .85 T	.02 T			
WAIAHI LOWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 WAIHEA 947	15.5 16.7 1.5 5.5 2.3	9	.05 .02			.10 .23	.03	.28 .02		.17 .29	.86 .42 .42	5.35 .66	.67	.07 3.42	•11 •31	•12 •15	.87 1.75 .04 .30	.22	.45 .20 .06	.13 .46	•02	.05 .11		.18 .21	.20 .13		.06 .06	.27 .52				
WEST LAWA! 931 A	5.2	9		T						.07	.31	•	•	3.83	.06	.12	.44	.02		•	.25	•12		.02	.02	٠	٠	.03				
15LANO OF OAHU																																
AIEA FIELD 625 761  BERETANIA PUMPING STA CAMP 84 C P C 807  ACCONUT ISLAND 840-1 FWA PLANTATION 741	2.8 4.9 2.1 5.5	6 3 6	.01	.93		.03	.04	.18		.02	.46 .68 .42 2.74	.18	2.08 1.14	1.14 1.18 1.38 .05	.04 T	.17 .04 .07 .03	.12 .19 .07 .06	.07	.05 .03	e e • 08	•12 •10 •05 •02	T		•01			•	.25 .22 .10 .22 .02	•15 •04 •02			
HELEMANO INTAKE 881 A MOKULOA 725.2 A HONOLULU OB5ERV 702.2 HONOLULU WBAP 703 R HONOLULU SUBSTA 704	1.7	9 e 3 3	.01	:	* * T	.08	: .	.16	:	*32 T	.34	.18 .16	1.00	.52	e T •03	• T •01 •15	2.52 T T T	.08 .10	* •02 •12 •07	1.10 .02 T	e T T	e T	* * T	T T	* T • 02	.18 .01	:	.06 .19 .27	•12 •01 T			
H S P A EXP 5TA 707 KAMANA 883 A KAHUKU 912 KAILUA FIRE STA 791.3 KALIHI RES SITE 777	4.4 16.7 6.1 4.5 9.8	0 02	* • 02 T	• 10 • 28 • 14	•	.04 .02 .20	1 • 71	.19		.06	.75 .30 2.05 3.06	1.14	1.85 e .17	5.05 .09	• •01	.05 .04 T	.04	.22	.17 e .01	.09	.07 3.15 .21 .01	T	e •01	* • 01 T	*01 T	.02	.16	.15 4.78 .10 .51 1.76	.04 .01 .02			
KANEOHE MAUKA 781 KANEOHE RANCH 838 A KAPALAHA 773 A KAWAIHAPAI 841 A KAWAI IKI INTAKE 880.2 A	8.3	9 9 7	.01	.49	.05	.06	.13 .16 .18	.05	.01	.03	2.10 2.30 1.50		.57	.22 .30 2.43 .45	.86	.05 .65 .64 .02	.55 .33 .25 .17	.04 .19 T	.10 .06	.03	.15 .85 .03			• 01	.03 .04		*	.35 .75 .55	.90			
KEMOO CAMP 8 855 A KOOLAU OAH 633 LAIE 903 A LUALUALEI 804 LUALUALEI WTR TUNNEL A	6.5	3 .08 .13		.12 .23	.05	.03 .18	.01 T		•12	.01 .10 .12	.04	.27		.76	.01 .15 T	.07 .76 T	.16 .41 -	.02 .47 T	• 31 • 02	.16	.10	.01 -		• 08 -	1.50	•08	-	.33 .50 -	.13			
LUNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUU POINT 724 MANOA 712	3.5 .9 1.2 5.1 7.7	6 1 0		•01		.04 .08 .14				.02	.33		.09	.32 .25		. 32	.08 .11 .08		.06 1.26	.05	.18		.02		.01	.11	٠	.78 .13 .22 2.05 .48	.05 .04 .08 1.19			
HANOA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 763 NUUANU RESERVOIR 5 775 A OPAEULA 870	14.0 2.8 10.4 9.8 5.1	3 2 9	.08 .01 .26	.04	.10	.80 .05 .26	.20		•06	.42	2.06 .87 .10 1.65 .28	2.06		.99	.14 .02 .56 .08	.64 .18 2.46 1.15	.02 .03 .44	.52 .17	* 42 * 42	.29 .12 e	.02 1.70	.02			.02 .12 .06 .02	.06 *	.02 .10	1.78 1.55 .40	.08 .07 .02 .48			
PALOLO VALLEY 718 PAUDA FLATS 784 PORTLOCK ROAD 724.4 PR1 WAHIAWA 820.2 PUNALUU 884	13.5 17.3 3.9	2 4 .02 2 5 1.20	.06 .56	.02		.54 .36 .02	.08 .07	.04	•10	.74	1.15	.81	1.09	•36 1•20	.76	.14 2.74 .01 .10	.02 .10	.64 1.26	.48 1.06 .07	•12 •20	.02 .02 .08		•02	• 02	.54 .48	.54 .02	•10	5.30 3.62 .75 .22 .38	•11 •01			
PUNCHBOWL CRATER 709 5T STEPHENS 5EM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713 WAHIAWA DAM 863		0 1 5 7	.04 .05	1.43	.01	.04 .09 .28	.03 .02	•02	.01	.08 .18 T	.83 2.62 1.10 .90	.95 .58	.12	1 • 1 1 • 1 8 2 • 1 5 2 • 8 1 • 6 5	.03 T .32 T	.11 T .58 .10	.27 .47 .94 .07	.07 .18 .02 .02	.45 .08 1.÷0	.05 .04 .41	.09 .12 .14 .38	.04 .04 .04	*01 Ť	T T • 01	T .08 T		.01 T .01	.10	.58 .06			
WAIAHOLE 837 WAIALAE KAMALA 715 WAIALUA 847 WAIANAE 798 WAIANAE MAUKA 803	12.5	1 .07	.02		•07	• • • • • •	.48 .04	T .02	.03	т	2.30 1.16 .11 .24	.68		2.97 .69 .75 .29	. 01 T	.42 .10	.82 .08 .12	.07 .01	. 26	.07 .08	*22 T	T	.23	•09		.06	.45	.09	.06 e			
WAIAWA 836 WAIKANE 885 WAIKIKI 717.2 WAILUPE RESERVOIR 170 WAIHANALO 794	12.3	9 e 9 e 0 8	.03	.20 e		.02 .05	1.44	:		.11 .09	2.92 1.00		1.73		e T e		.14 3.10 .20	4.74	.04 .04	* * * T	1.30 .03 e	•04		.15 .03	1.78	01		9 5.67 .20 8	2.62 .08			
WAIMEA 892 WAIPAHU 750 WILHELMINA RI5E 721	3.5	1 5	Т	•12	:	e e •04	.20 .01	T •02		.03	.13 .30 1.10		1.42	1.35 1.22 .02	.28	.28 .02 .14	.08 .14 .06	.22	• 10	e e e12	.23 .09 .08	•01	.02			• 12	•	.47 .06 1.74	•20			

HAWA11 FEBRUARY 1967 Continued Day of Month Station 10 11 12 13 14 15 3 4 5 8 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 15LAND OF MOLOKA1 KALAUPAPA 563 KAUNAKAKAI 536 KEONELELE PEN5 551 KUALAPUU 534 MAPULEHU 542 .10 .10 3.24 \* \* \* \* \* \* •48 \* •40 1.59 .02 .02 . 13 -46 .21 .60 .26 MAUNALOA 511 MOLOKAI AP 524 PUUOHOKU RANCH 542+1 WAIKOLU 540 .03 .03 .04 .01 .02 .22 1.03 1.04 \* •23 2.85 . . . ISLAND OF LANA1 KANEPUU 690 KAUMALAPAU HARBOR 658 LANAI CITY 672 LANAIMALE 684 HAHANA 694 1.09 2.98 3.88 1.54 .03 .97 1.50 1.54 •02 •53 .43 MALAUEA 676 WAIAKEAKUA 685 15LANO OF MAU1 AUWAM18252 MALEAKALA B E 5 434 MALEAKALA RANCH 432 MALEAKALA R5 338 MALEAKALA SUMMIT 338.4 1.01 7.64 3.51 2.83 1.44 .11 .30 HALIIMAILE 423 HAMAKUAPOKO 485 HANA 354 HANA AIRPORT HANAHULI 281 .15 .34 \*
.22 .56 .40
.25 1.05 .01
.42 .61 3.02
.34 .44 .34 .05 2.27 .07 .81 .07 .11 .09 3.82 4.57 2.50 5.40 2.87 .50 .08 .06 .03 .01 .01 .04 .07 .01 .07 .04 .14 . 14 . 05 .03 .13 .01 .90 .46 .02 .08 .50 .02 .01 HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOMANU GULCH 341 KAHOMA INTAKE 374 3.17 18.40 3.82 5.00 10.53 .12 .01 .31 .02 .03 .06 .78 .25 .09 .23 1.98 .15 9.30 .30 KAHULUI WB AP KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAHUA 410 .02 2.13 14.34 8.47 3.33 2.90 .28 1.30 .02 13 1.18 T .02 .02 .32 .10 .70 .02 .56 .89 1.34 1.18 .05 .26 . 30 .03 .04 1.90 .03 KEANAE 346 KEAWAKAPU BEACH 260.2 KIMEI 311 KIPAHULU 258 KULA HEIGHT5 323.2 2.30 22.30 .06 .74 .38 .10 .20 .21 .10 .04 KULA SANATORIUM 267 2.09 .03 .20 .10 •02 .20 +22 . 25 .10 2.90 LAMAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 .20 .32 4.37 4.66 4.03 .30 2.10 .23 .35 .08 2.16 MAHINAHINA 466 .22 . 52 MAMINAHINA 466 NAKALELE %FLO 60%497 OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 .01 .20 .22 .02 .03 2.20 2.20 PAAKEA 350 PAIA 406 PANILEIHULU 259.2 PAUWELA 490 POMAKEA BRIOGE 307.2 20.67 2.25 1.33 5.77 1.29 .01 4.13 .36 .03 1.10 .62 .81 .21 .25 .24 .02 POLIPOLI SPRINGS 267.2 PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNENE 396 SPRECKELSVILLE 400.2 3.37 25.40 10.00 1.86 2.30 •02 • .26 15.40 10.00 7 .51 .03 .01 .07 .01 - 0.1 . 01 .03 THIN GATES 261.3 \* 1.75 5.23 UKULELE 333 UKUMEHAME 301 ULUPALAKUA RANCH 250 WAHIKULI 364 .09 .08 .19 .21 .46 1.18 .17 1.51 1.83 .16 .09 .10 .04 .18 WAIEHU CAMP 484 WAIHEE VALLEY 482 3.28 .10 .04 16.70 15.09 2.33 2.12 1.11 2.47 \* .13 .07 1.30 .07 .20 .07 .22 .03 -44 .01 .48 .03 WAILUKU 392 WAIOPAI RANCH 256 \* 1.21 T 15LAND OF HAWA11 AHUA UM1 75 AWINI 182.1 EAST HONOKANE 183B HAINA 214 HAKALAU 142 1.10 4.32 9.40 2.42 .40 .67 .03 . OB .35 .57 .53 .06 .15 21 .42 . .95 .36 .29 .11 .03 .04 .01 .10 .62 .21 HALEMAUMAU 52 HALEPIULA 117 HALEPOHAKU 111 HAWAII VOLCN5 NP HAWI 168 3.74 HILO WB AIRPORT 10.35 5.54 3.12 4.69 6.06 .05 1.01 .08 3.47 .05 .12 .19 HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAU 27 HONOHINA 137 .22 .02 .14 .08 1.09 .05 .06 .03 1.09 1.40 .01 .01 .20 1.20 .92 .07 +04 HONOKANE 181.1 HONOMU MAUKA 138 HONUAULA 71 HUALALAI 72 HUEHUE 92A 9.91 14.03 1.54 6.31 .07 .17 2.00 .01 1.54 1.70 2.89 KAALA 1K1 12 KAAWALOA 29 KAINALIU 73B KAMAOA NO 2 5 KAMUELA 192.2 .02 .06 .01 .09 .08 2.00 7 .30 • .11 .26 .10 .05 .01 . .02 .03 1.05 .05 .03 .02 .08 .02 .01 1.15

Continued																															HAWA1		
Station		Total	_												Day	y of N	fonth														FEBRU	ARY	19
AMUELA AIRPORT APAPALA RANCH 36		1.99		2 T	3	4 T	5 1	6 T	7	8	9			12	13 T	14	15	16	17 T	18	19	20	21	22	23	24	25	26	27	28	29	30	3
IPOHO LANOING 935 IUMANA 88+1 IWAINUI LOWER 193	A	6.24 11.49 3.17	•	• 1	8 .04			•02			* *42	1.86 2.02 1.52	.10	1.87	.72	* 46	.81	2.00	2.99	.18	.04	.12	•	*	.18	1.21	.02	.01	. T	.55 e 2.26			
AAU 92 ALAKEKUA 26.2 HENA 181.2 HENA RESERVOIR 176.1 OLAKAA A ? F 6	A A A	8.59 3.06 6.90 7.61 9.58	.08		.0		T .	.03 T	.02 .16	*11	.76 .02 *		.52 T	.94 .82	.54 .28 .58	.63 .05	.84	.67 .15 e	1.17	.17 T	.05 .12	.31 .01 e	.03 .01	.02	.23 .01	.02	.12	T	.15	6.90 4.10			
PA 89.2 MALA 179A MALA MAULILI 176 MALA MISSION 175.1 IAWE LOWER 196	A A A	16.27 10.57 5.28 6.89 1.96		*14 T		* *55	.01 e .07	* 1.07 .26 .52	T	T .	1.45 1.42 .89 1.19	.30	2.30	3.10 e T	1.17 5.61 .87 T	.63 .01	1.29	2.42 .15 .28 .30	T •01 T	.38 e .14	.13 .05	.23 .03 .38	.03 .06 .01	Ţ	.12 .04 .04	•24 •11 •14		-14 * T	.02	2.29 1.02 1.60 1.26			
NA AIRPORT 68.3 KAIAU 222 KUIHAELE HIC 199 KUIHAELE MILL 206 LANI CAMP 79		1.24 5.97 3.51 3.52			.08			.24 .17	.01	.01	.37 .38				.75 .05	.06		.08	.23	.06	.05	T •11 •02	.01 .03	-	•13 •12	.19	·			4.21 2.15			
LANI MAUKA 76 LANI SCHOOL SITE 78 NIHAU 68 C	A	1.67	.52				• 05	- 07	.06 _ .28	.06	.63	.39 T	1.09 T	.18	1.09 .05	•02	.16	2.96	.10	.18	.04	.02			.04	.04	.06	.03		1.60 1.03			
IUKA 2 INA LOA SLOPE OBS	A	2.01					•	.19	T T	.66	.07	.61	.09 .07	.05	.05	. 94	•68	.03 .08	.75 .41	•23	*18	•11	• 20			.01			. 35	•			
OOLE HOLUALOA 68.1 OOLE PEN 147.1 JULA 18 INTAIN VIEW 91 JULEHU 14	A A	3.06 1.21 3.50 12.27 7.63	* T	.21 * .23			.03	• 38	* T	* 05		.89 1.30 4.03	.82	1.70	.10 .10 .85 .30	* •43 T	•58 •22 • •91	* 1.08 .13	* •03	.29	.09	• •56	.05 T		.08 *	* .18	.10			3.50 2.56			
OOPOO 28 EU FOREST 38.6 EL1 179 ALA 223 HIHALE 2 24.1	A	1.39 8.24 5.94 5.13 2.33	.05	.22	•12	T *		1.34	.01 .01	•03	.34 1.25 .57	.90 .20 .42		2.85 02 .02	.66 1.63 .11	.08	.04	.95 .08	* T	.09	.22	.47 .03 .08	. 02 .01	*	* •02 •10 •18	.02 .12 .22	e T	.09	•11 •32 •10	.12 1.02 1.80			
H10 LANO EST 91.5 UHAU 217 UHLO 221 ALA 21	A	7.76 4.20 5.65 4.78	•	•	.24	.02	*	1.11		***	. 34 l . 36	2.03 .48 .40	.02 .08	•	**	.03	•02	.01	.04	T .	T * .08 .04	.08 .06 .16	•01 •05 T	•	e •01 =04	1.25	* 10	T e		a 1.98 4.03			
OA 65 AO 37	A	9.81	.10	.31	.11		.02	.25	.09	.10	.63	2.53		1.00	.04	.83	.02	.06		.31	.10		.03		.16	.07	.06		.09				
AIKOU 144A AIKOU MAUKA 140A EEKEO MAKA1 144 HONUA 89	A	8.90 13.10 6.31 22.00		.09 .16 .11	.04		.01 .01	.18		†°1	.34 .41 .86	.96 1.44 .72	.09 .19 .08	3.48 2.60 1.75	.86	.32	80.1	.12	T	.13. .45 .22	.10 .16 .18	.13	.02 .01 .02	•	.08 .20 .17	.10 .11	.01	.62		4.20 .73 1.83 .36 2.00			
AKULOA 107 KO 95A KAPU 192.1 KIHE 120 LAAU 102.1	A A A	.00 1.82 1.05 2.65 1.12	:	:	:		:			:	*	1.79	.03	* *				:		:	* * *				:			:	:	1.05 2.65 1.12			
LEHUA 73 MALI 113 DKUMAU 167 OO 82 WAAWAA 94.1	A	2.90 1.09 9.40 5.46 2.44	.65	.50 .01	* * *01 *17	.02 .33	* * *	.45	:	.05	.80 .08		* * *10	* * * * * * * * * * * * * * * * * * *	• • 90 • 94 • 20	* *	.51	.43 .85	.09		.04		• 02		* * •05	• • • • • • • • • • • • • • • • • • • •	:	0T	:	2 * 9 0 1 • 0 9 4 • 9 0			
OLE ROAO 1 84 TH POINT CORRAL 3 KOA 118 LU POINT USCG 159.2 AKEA SCO 88.2	A	15.76 3.69 5.11 4.03 13.07	:	.09	.02	.12 .50	.06	.39 .06	.02	:	.06	3.23 2.10 .17 .52	.70 .34 .65	. 05	.08	e • 24 1	.04	* 10		.02	.02	.23	.01	.01	.01 .04	.10	•	*		8 3.88 .54			

## SUPPLEMENTAL DATA

			Wi Speed -		.)		Relati		idity ave	rages -		Num	ber of d	ays with	precip	itation			nset
Station	Resultant	Resultant Speed	Average	Fastest	Direction of fastest mile	Date of fastest mile	150 2 AM	OTH MER	IDIAN TI 2 PM		Trace	01-09	1049	5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO WB AIRPORT	18	2.6	9.3	20	E	15	80	78	68	80	6	4	9	3	2	1	25	47	6.7
HONOLULU WB AIRPORT	7	7.9	10.2	33	NE	28	7.8	79	61	73	10	5	4	1	1	0	21	40	6 • 3
KAHULUI W8 AIRPORT	7	8.4	10.7	31	NE	13	81	81	58	71	9	4	2	0	1	0	16	66	5.9
LIHUE WB AIRPORT	7	7.5	11.6	23	E	28+	85	84	73	8.2	8	9	3	2	1	1	24	46	7.0

		_							D	711	61	11	71.41		111		UR													F	EBRU	ARY	
Station									0	0	10		12	13		Day 15	Of Mo	nth 17	81	19	20	21	22	23	24	25	26	27	28	29	30	31	Āverage
		I	2	3	4	5	6	7	8	9	10	11	12	13	14		**	**			20	-		20			-	-	20		•••	-	×
ISLAND OF KAUAI																																-	
ANALOHULUHULU 1075	MAK	67	65	66	66	68	68	69	70 43	70 43	67	65 56	61	66 55	67 55	65 55	66 56	69	66 47	67	62.	62	69 41	69 54	67 49	70 46	67 45	64 53	61				66
ILAUEA POINT 1133	MIN MAX MIN	78 66	81 66	8 I 64	81 65	78 66	85 70	48 79 62	81 67	81	80	78 68	77	76 68	75 67	74	78 71	78 64	81	77 62	76 62	78 66	80 71	77	78 68	78 67	75 66	75 67	75 65				78 66
.IHUE WB AIRPORT	MAK	77	77	76 62	77	75 67	79 65	78 62	78 63	78 66	77	76 68	78 66	76 72	76 69	78 70	79	79 70	80	77 66	77 66	76 68	77 70	79 70	78 67	76 64	75 64	74 66	74 67				77
MAKAHUENA POINT	MAK	78 63	81	81	82	81	79 68	84	81	80	82	80 71	81	81	80	78 71	80 69	80 68	79 69	82 64	80 66	79 66	78 64	79 68	80 68	80 67	8 1 65	80 64	75 64				80 66
IANA 1026	MAX	78 58	79 63	83	83	82	82	83	84	81	86	79 65	80	82	81	81	82	81 62	80 63	81	80 63	8 2 5 6	82 58	81 63	8 <b>1</b> 6 2	79 63	80 62	82 58	83 56				81
ILU RIOGE 1035	MAK	78 59	77	78 60	78 60	79 59	80	80	80	80	80	79 62	80	80	77	79	80 64	80 59	80 59	80 59	79 58	78 55	78 56	78 57	79 58	80 57	79 58	79 58	79 57				79
AIAHI LOWER 1054	MAK	77	78 58	80	83	78 57	79 58	80 58	78 57	76 59	76 62	75 57	75 59	74 65	75 65	75 65	76 65	76 60	77 62	77	75 60	75 55	75 60	76 60	76 58	76 58	78 55	72 57	72 58				76 59
	17 6 14		20	,,		,	,,		-	-,			-,																				
SLANO OF OAHU																																	
EWA PLANTATION 741	MAX	84	82	82 65	84 61	80 62	83	83	83 61	84	75 68	78 66	75 65	81	79 68	78 68	82 67	82 64	83 65	8 1 6 1	80 62	80 60	81 63	83 66	80 65	81 61	8 2 5 8	76 60	78 65				80 63
HONOLULU WBAP 703	MAK	84	82	81	82	81	82 65	84	83	84	76 69	8 2 67	76 66	82 68	83 70	80	83 69	83 68	83 67	8 2 6 3	80 67	79 65	81 68	83 70	8 2 68	8 I 6 3	80 62	74 65	80 66				81
HONOLULU 5UB5TA 704	MAK MIN	82 71	80	79 70	81	79 70	80	81	80	82	75 68	78 68	74 65	79 72	79 71	78 70	79 71	79 70	79 68	77 68	77 69	75 68	78 68	78 71	78 70	76 66	79 65	71 63	74 67				78 68
AHUKU 912	MAX	78 66	79 68	78 64			79 61	80	80	79 67	79 66			79	79 66	78	77	79 69			78 65	77 66	76 66	78 66	78 68			79 59	73 65				78 65
ANEOHE MAUKA 781	MAX	70 68	80	78	82	80 65	78	80	80 67	83	80	75 66	78 67	75 70	75 71	75 71	74 69	79 69	77 69	78 65	78 66	78 64	77 65	78 66	78 66	77 66	79 64	80 65	78 66				77
MAKAPUU POINT 724	MAX	76 68	75 70	78 67	80	77	76 68	79 67	78 70	77	76 68	74 67	76 68	74	74 70	75 69	78 67	75 70	74 68	76 67	77 69	77 65	75 66	76 70	76 66	76 66	79 69	78 65	71 65				76 67
PAEULA 870	MAK	74 61	78 61	72 61	78 57	80	73	80	79 59	78 59	78 65	71	72	71 65	71	72	73 64	75 63	79 66	77 59	72 62	74 57	72 56	74 63	75 63	75 62	75 57	80 61	69				- 74 61
PRI WAHIAWA 820.2	MAK	78	81	79 61			82	80	82	80	80	73 66	75 64	77 63	77 65	78 65	76 65	79 62			79 60	78 56	79 57	79 57	79 64	78 58	80 58	80 56	73 61				78
WALALUA 847	MAX	78 60	83 60	80 62	80 63	80 61	78 62	81	82 59	80 59	82 63	77 68	78 67	75 66	79 65	80 67	77 63	81 61	80 62	80 61	79 58	78 54	77 56	79 58	80	8 2 6 2	8 2 60	8 1 58	72 60				79 61
NAIKIKI 717.2	MAX	83 67	81	85	85	85	83	85 62	85 63	85	84	75 66	80 66	79 69	82 71	82 70	80 69	84 68	84	84 63	83 67	81	81	8 2 6 9	83 68	84 63	84 59	83 65	75 66				82
SLANO OF MOLOKAI																																	
MOLOKAI AP 524	MAX	77	8 I 62	80 62	79 62	79 62	77 65	81	81	77 64	77 68	71 67	80 67	79 65	77 68	77	78 68	80 65	78 66	79 69	76 68	75 65	75 64	77 64	77 65	78 63	78 59	78 64	70 65				77 65
SLANO OF LANAL																																	
ANAI CITY 672	MAX MIN	75	74 59	77	76 60	73 63	76 61	76 64	74	74	72 63			76 62	72 62	75 61	76 61	74 64	74 61	72 63	76 62	72 59	73 63	74 61	73 57	74 59	72 61	74 58	75 61				74
									-	-					-																		
SLAND OF MAUI																																	
ALEAKALA R5 338	MAK	58	62	62	57 35	59	58	61	65	63	61	61					58	61	60	59 37	62	60	62	69	67	62	59 38	58	53				60
MALEAKALA 5UMMIT 338.4	MAK	48	53	55		56	49	50	46	44	44	43	77	44	46	50	45 38		30	,	50	44	46	52			30	54	41				48
ANA AIRPORT	MAX	80	80	80	80 67		80	81	81	80	77	80 65		78		80	79 71	80		80 60	79	79	77	79	80		82 66	79	73				79
AHULUI WB AP	MAK		82	82	79	78	80	83	81	68 79	80	82	82	81	81	82	82	82	82		78	76 62	81	81		80	78	73					80
AILUA 446		76		77	77	78 57	78	78	78	78	78	78	78	78	75	72	72	75	75	76	76	76	76	76	76		77	77					76
ULA 5ANATORIUM 267	MAX	68	71 55	69		70	68	69	71	71	74	67		68		70		69	68		69	_69	69	70	68	70	65 55	68	67				62
AHAINA 361	MAX	81	83	82	83	84	84	84	83	84	88	79	83	85	82	80	85	83	86	83	84	84	81	83	84	83	84	83	80				83
WAILUKU 392	MAK MIN	81	81	85	66	85	67 78 64	83	83	80	68	81	84	8.3	80	78	81	80	80	80	79	79	77	80	81	82	58 83 60	82	74				80

Continued									-	711	11 1	1.	lui¥.	LFI	ER/	7.1	υn	ټاسال.	,												WAII FEBRUA	RY 196
Station																Day	M 1O	onth														age.
	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	A Avera
ISLANO OF HAWAII																																
HA1NA 214	MAX	79	78 58	79 58		80	78 60	80	78 60	75 63	76 60	77 59	80	78 64	77 65	75 64	75 64	77 58	77	78 58	7 <b>5</b> 58	78 55	78 57	77 61	73 59	76	77	80	79			77.
HAWAII VOLENS NP HQ 54	MAX MIN	66		66 51	70 46	70	68	70 50	68	69	64	67 56	64	61	61	61	61	64	68	67	65	65	64	66	64	58 67	62	65	68			60.
ILO W8 AIRPORT	MAX	82	82	83	85	85	85	84	84	82	83	79	82	82	77	80	83	83	81	80	78	76	80	50 81	84	51 84	82	81	76			50 <sub>0</sub>
AlNALIU 738	MAX	72	80	78 58	79	77 58	79	79	75 59	76 58	78 62	69 74 61	70	76	74	71	75	75	76	80	70	75	75	67 75	63 76	73	66 76		76			75.
AMUELA 192.2	MAX	72	73 52	76 47	75	77 56	76 56	79 57	72 57	69	74	70	76	72	62 72	59 77	61 75	70	74	70	69	67	56 65	57 68	58 68	71	58 74		70			-59. 72.
AMUELA AIRPORT	MAX	71	71	72	73	72	73 50	74	74	71	58 74 54	70	74	73	72	70	53 71	70	71	70	55 71	69	70	56 69	69	70	51 72	72	72			52. 71.
EAAU 92	MAX M1N	80	81	80	83	83	83	82	80	80	79	85	48 85	50 85	80	75	76	80	81	81	58 81	77	74	57 77	78	81	81		58 79			50.
OHALA MISSION 175.1	MAX	77	77	78 62	78 62	79	78	79	77	75	76	77	82	65 78	76	64. 74	73	77	78	76	76	75	56 75	61 75	76	77	60 79	77	62 75			76.
ONA AIRPORT 68.3	MAX	80	82	82	82	81	82	81	81	81	81	80	82	68 80	68 80	80	80	80	79	63	80	80	82	66 80	63	63 82	62 81	80	62 82			80.
ULANI CAMP 79	MAX M1N	66	66	61	65	66	65	64	65	65	65	65	58	66 58	64	65	58	57	62	62	63	63	63	64	60	67	63	62	66			63. 62.
AUNA LOA SLOPE 085	MAX	51 36	50	51	49	51	50	50	52	51	58	48	51	53	51	54	53	55	52	51	39 53	51	57	45 59	63	38 55	45 56	53	48 52			52.
OUNTAIN VIEW 91	MAX	75 58	72 58	74	76	77	78	36 78	76	76	72	78	78	72	38 71	35 68	70	73	78	78	78	72	71	38 74	74	36 78	36 78	78	75			-75.
AALEHU 14	MAX	78	78	58 79	79	55 78	58 78	58 79	56 79	80	74	61 79	79	62 79	59 77	77	77	53 77	77	58 78	56 78	50 80	48 78	57 79	57 77	77	56 78	56 78	56 79			78.
OXALA 223	MAX	80	65 79	80	80	81	81	65 79	62 78	79	79	65 78	65 82	65 77	66 77	65 75	65 75	64 78	78	61 79	61 80	80	58 76	65 79	65 77	65 78	62 80	80	65 78			63. 78.
P1H1HALE 2 24.1	MIN	77	68 78	76	76	70 79	73	65 76	67 74	76	67 74	62 76	66 75	67 72	65 76	78	65 75	65 74	76	63 73	62 72	76	70	63 74	72	65	64 70	73	64 73			64.
AHALA 21	MIN	58 76	57 75	77	78	58 78	58 79	57 79	57 78	57	61 77	59 79	59 75	60 75	58 75	58 77	59 76	56 75	78	55 80	56 77	56 81	57 78	57 80	76	55 77	55 79	56 75	57 79			57.
POLU POINT USCG 159.2	MIN	63 78	60 78	62 81	59 81	69 81	60 79	60	55 80	56 83	61 81	63 76	63	63	63	63 78	64 78	60 79	61	60 79	58 78	53 79	55	55 78	57	58	60	60	60			60.
	MIN	67		65	69	68	69	66	69	68	64	69	70	86 67	71	68	69	64	66	66	61	64	62	67	78 64	80 64	81 65	80 66	79 66			79.

## EVAPORATION AND WIND

<b>a.</b>																Day	Of M	onth															7.6
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
ISLAND OF KAUAI																														1			
LIHUE WB AIRPORT	EVAP W1NO MAX MIN		.20 52 87 62		87	80 83	50 83	.20 58 83 61	.19 48 88 65		.07 157 85 65	118 82	61 82	105	140	136 76	116 82	108 86	87	81 85	115 86	170 87	205 82	134 83	108	66 86	41 81	98 80	251 77				5.88B 2813 83.3 63.9
ISLAND OF DAHU																																	
HONOLULU 085ERV 702.2	EVAP WINO MAX MIN		.18 35 87 65	21	21		.15 27 87 65	17	.15 31 87 63	.20 44 85 63	.34 61 86 65	.10 32 76 66	29 77	35 77 65	.19 42 81 66	41	.11 49 81 67	.20 37. 86 65	87	.20 26 87 63	32	47 86	43 83	56 84	.22 55 83 64	.23 38 87 64	.15 21 89 62	25 89	62 81 59				5.19B 1004 84.6 64.0
# # # ISLANO OF HAWAII																																	
HILO WB AIRPORT	EVAP WINO MAX MIN		.14 71 81 65	.18 73 82 63	.19 61 83 61	.18 65 85 62	•26 93 84 64	.19 72 82 64	73 79	.07 69 85	89 82	38 76 67	.14 93 78 67	.08 75 81 66	57 73	70 77	.19 51 83 66	82		73 83		160 79	95 85	75 85	.25 86 83 61	77: 85	.09 49 78 64	104	72				4.828 2194 81.4 63.8

Ç	ON		GE 1	UDE	TUDE	MOIT	T	SERVA IME AI TABLE	ND			NO.		IGE 1	UDE	TUDE	TION	T	SERV IME TABI	AND	N	ODGES
STATION	DIVISION	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		PRECIP. EVAP.		OBSERVER	STATION	INDEX NO.	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	PRECIP.	EVAP.	SEE NOTES!	OBSERVER
NAMOLA 1111 A 01 RYDES#00D STA 985 A 02 AST LAWA! 934 A 04 KW 3 RESERVOIR 1394.! 04 LEELE 927 A 04 ALAULA 1110 A 09 ALENANAHO 1076 A 1	65 J2 KA 73 O2 KO 35 O1 KA 38 O2 L1 70 O1 KA	WAIHAU WAIHAU WAIHAU WAIHAU WAIHAU WAIHAU	2 2 1 2 1	22 09 21 56 21 55 22 06 21 54 22 07 21 58 22 05	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28	1610 11'6 720 441 350 163 253 490		7 A 7 A 7 A 6 A 7 A 8 A	c c	MC BRYDE SUGAR CO. LIMUE PLANTATION CO MC BRYDE SUG CO LID MC BRYDE SUG CO LID LIMUE PLANTATION ID MC BRYDE SUG CO LID GROVE FAP CO LID SULMUE PLAN CO LID SULMUE PLAN CO LID SULMUE PLAN CO LID KERAMA SUGAR CO LID	ISLAND OF LANAI  KANEPUU 690 KAUMALAPAU HAPBOP 658 A LANAI CITY 672 LANAI HALE 684 MAHANA 694 MAHANA 694 MALAUEA 676 A MILAUEA 676 A ISLAND OF MAUI	3461 01 5286 01 5301 01 5704 01 6012 01 9021 01	LAHAINA LAHAINA LAHAINA LAHAINA	1 1 1 1 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	157 OC 157 OO 156 55 156 53 156 55 156 55 156 52	1640 30 1620 3370 1430 1135 2040	7A	WI 8A 7A WI MO WI	10000	0000	OLE COMPANY OLE COMPANY OLE COMPANY OLE COMPANY OLE COMPANY OLE COMPANY
LIKIPO 945  LIILIULA INTAKE 1550  NTAKE #AINIHA PC 17864 28  ALIHIMAI PES 1131 4 26  ANALCHULUHULU 1775 33  ANEHA PESEPVOIP 1 92 A 31  EALIA 1112 A 36  EALIA 1112 A 36	74 01 HA 09 03 WA 04 01 KA 59 01 KA 82 01 KA 72 03 WA 61 01 HA	HUE NALE I NALE I IMEA WATHOU WATHAU WATHAU IMEA NALE I	2 1 3 1 1 1 3 1	22 02 22 09 22 11 22 08 22 08 22 05 22 06 21 58 22 13	159 41 159 28 159 34 159 26 159 40 159 20 159 19 159 43 159 25 159 24	800 1070 690 400 3600 800 175 9	вд	7 A V I 7 A P A P A P A P A P A P A P A P A P A	0 0 00	KERAHA SUGAN CO LTO  MC BRYDE SUG CO LTD  KILAUEA SUG PLTN CO KANALOMULHUHUU R. S. LIHUE PLANTATION LIHUE PLTN CO LTD  KEKAHA SUGAR CO LTD  KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO	HAELAAU 477  MALEAKALA B E S 434  MALEAKALA BANCH 432  MALEAKALA RS 338  HALEAKALA SUMMIT 338,4  HALEHAKU 492,2  HALIHARIE 423  HAMAKUAPONO 485	0790 04 0995 01 0999 01 1004 02 1008 02 1016 01 1086 01	HANA LAHAINA LAHAINA MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO	2 2 1 1 1		156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21	2060) 1050 2980 2100 1850, 7030, 9960 690 1070 320	8A 8A	5A 5A	100	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	JUPALAKUA RANCH  RAUI PINEAPPLE CO,  AUGUI PINEAPPLE COMPA  OF HAWAII EXP STA  NALEARALA RANCH CO  OF MICH NT HKALA  OF MICH NT HKALA  OF MICH NT HKALA  AUGUI PINEAPPLE CO.  (AWAII ON COM + SUS C
ILAUEA POINT   1133   45   45   45   45   47   47   47   47	69 01 HA 50 03 WA 35 03 WA 42 02 KD 50 02 KD 60 02 KD	NALET IMEA IMEA LOA LOA HATHAU LOA HUE HUE	1 3 3 2 2 1 2 2	2? 14 22 02 27 04 21 55 21 58 22 11 21 54 22 01 21 59	159 24 159 41 159 46 159 29 159 29 159 23 159 30 159 23 159 22 159 21	180 2150 36 240 640 737 104	8.8	8A 7A 8A 7A 7A 6A 7A 7A 8 D 8	C A C J	U 4 COAST GUAPD KEYAMA SURAP CO. KEYAMA SURAP CO. TO SROVE FARW CO LTO GROVE FARW CO LTO GROVE FARW CO LTO VILLABLA SUG PLTN CO VILLABLA SUG PLTN CO VILLABLA SUG PLTN CO VILLABLA SUG PLTN CO LTO U 5 WEATHER BUREAU U 5 WEATHER BUREAU U 5 WEATHER BUREAU	HONOKOHAU 480 A HONOKOHUA 493 A HONOLUA FLD 49 494 A HONOMANU GULCH 341 A 1AD NEEDLE 387-2 KAHOMA INTAKE 374 A	1882 04 1887 04 1914 04 1935 01 2208 03 2552 04	HANA	1 2 4 4 4 1 3 4	20 45 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 54	155 59 156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 38	325 6930 870 135 125 6280 1100 2000		8A 11A 7A MO VC 6A MC	8	5 A	MARPY MASEGAWA MAMAIIAN AIPLINES LOALI PANCH MALEAKALA WATL PAPK MAUI PINEAPPLE CO MAUI PINEAPPLE CO MALEAKALA PANCH CO LTATE DIVISION OF PA JIONEER MILL CO LTD  J S WEATHEP BUPEAU  J S WEATHEP BUPEAU  J S WEATHEP BUPEAU  J S WEATHEP BUPEAU  MAMAMAIAN AND AND AND AND AND AND AND AND AND A
AKAWELI 965 A 58 AKA 1026 60 + M 1001 60 OHIHI UPP CPOSS 1.83 64 DLOAA 1145 A 65 DUNY WAIALEALE 1047 65 IU PIDSE 1035 68 WAILUAD DITCH 1051 68	85 02 FO 64 03 MA 82 03 MA 97 02 33 01 WA 29 01 KA 65 02 MA 86 02 LI 93 01 U1	IMEA IMEA WAIHAU IMEA IMEA HUE	2 3 1 2 3 2	22 04 22 02 22 04	159 27 159 38 159 46 159 29 159 36 159 20 159 30 159 44 159 28 159 26	52 140 11 300 3500 330 5075 1250 1110 650	6A 9A	6A 7A 9A MIO 7A 6A 7A	lc :	U S COAST GUAPD OLDRELF SUGAD CO KFYAMA SUGAP CO LTD GROVE FARM COMPANY SU S GEO SUPVEY LINUE PLANTATION CC. U. S. GEO. SUPVEY VEYAMA SUCAP CC LTD LINUE PLIN CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD	KAILIILI 436 KAILUA 446 KAILUA 446 KAILUA 1NTAKE 375 KAIPOP PANCH HOUSE 259 KEANUA 413 KEANUA 436 KEAAAKAPU 3EACH 262 KIHEI 311 KIPAMULU 258	2630 01 2679 01 3433 04 3676 03 3910 0 4091 03 4193 03 4489 03 4634 03	MAKAWAD MAKAWAD LAHAINA HANA MAKAWAD	1 1 4 2 3 1 2 3	20 51 20 54 20 53 20 39 20 52 20 50 20 42 20 47 20 39	156 26 156 16 156 13 156 38 156 23 156 10 156 27 156 27 156 04	2520 700 1585 1020 480 980 20 90 20 90 260	7A	MO	k		E MAULI RP CO LTD FIGNESS PILL CO LTD FIGNESS PILL CO LTD AUPO SANCH AWALIAN COM + SUG C MAULI PP CO LTD ALL CORFEL AWALIAN COM + SUG C CIPANULU CATTLE COMP
PINCEVILLE RANCH 1117 81 UEHU RIDGE 104 82 UHI 1113 4 82 ESEPVOIP 6 1004 A 85 IABLE CAMP 1055.1 86 AHJAWA 93. 4 89	65 01 HA 65 01 HA 65 03 WA 17 02 LI 73 02 LI 94 02 LI 41 02 KO 49, 02 KO 58 02 LI 66 02 LI	NALEI IMEA MUE MUE LOA	2 2 2 2 2	22 12 22 13 22 01 21 58 21 57 22 04 21 54 21 56 21 56 21 56 21 56	159 34 159 29 159 42 159 27 159 27 159 27 159 34 159 31 169 27 159 28	101 295 1660 329 420 740 215 2170 565 780		5 A 7 A 8 A 9 A 9 A 9 A 9 A 9 A 9 A 9 A 9 A 9	- 4A 0.0-	MC BRYDE KUG OC LTC pPINCEVILLE PANCH KEKAMA SUGAP CO LTD SBOVE FAPA CO LTD SBOVE FAPA CO LTD LIHUE OLANTATION OC. WC RAYDE SUG CO LTC LIHUE PLTN CO LTD LIHUE PLTN CO LTD LIHUE PLTN CO LTD	AULA HEIGHTS 323.2 KULA SANATOPIUM 267 LÄHAINA 361 LAUNIUPOKO INTAKE 376 / LAUNIUPOKO INTAKE 376 / LUDI UPPEP 442 MAHINAHINA 466 MALUHIA 482.2 NAKALELE -FLO 60-497 /	5003 00 5006 00 5177 04 5404 04 5408 04 5665 00 5715 04 6042 00 6645 04	MAKAWAO MAKAWAO LAHAINA LAHAINA MAKAWAO LAHAINA MAKAWAO LAHAINA WAILUKU	2 2 4 4 4 4 4		156 19 156 22 156 41 156 37 156 38 156 15 156 40 156 32 156 36	5788 2520 3004 45 1280 2200 715 1040 340	7A. 7A		N N N	5 6 6	AUT OF NEAPPLE CO CENNETH WILLEY ULLA SANATORIUM PROMESE MILL CO LTD PROMESE MILL CO LTD PROMESE MILL CO LTD PROMESE MILL CO LTD S OF A FOUNCIL AUT PREAPPLE COMPA FAUT OR WATER DEPT
ALAWA 943 92 ALLUA KAI 1065 A 94 ALMEA 947 96 EST LAWAI 931 A 99 ISLAND OF OAHU IEA FIELD 625 761 A 01 ERETANIA PUMPING STA 32 AMP 84 C P C 837	53 C3 WA 67 02 U1 29 C3 WA 55 02 K0	IMEA HUE IMEA LOA	2	22 02 21 57 21 54	159 43 159 21 159 41 159 31 157 57 157 51 158 04	10, 50, 20, 210, 455, 20, 680		84 74 84 74		KEKAMA SUGAP CO LTC LIHUE PLAYTATICN WAIMEA SUG MILL CO LYC BRYDE SUG CO LTC WAIAHOLE WIP CO LTD 30APD OF WIP SUPPLY CALIFORNIA PAG COPP	OLOWALU 296 OLOWALU GULCH 377 A PAAKEA 350 PAIA 436 PANILEIHULU 259.2 A PAUWELA 493 POHAKEA BPIDGE 307.2 POLIPOLI SPRINGS 267.24	7059 04 7066 04 7194 03 7566 03 7674 03 7857 03 8060 03	LAHAINA HANA WAILUKU HANA MAKAWAO WAILUKU MAKAWAO	1 1 2 1 3	20 48 20 49 20 51 20 49 20 55 20 41 20 55 20 49 20 41 20 50	156 17 156 36 156 07 156 23 156 08 156 19 156 31 156 20 156 13	4127 900 1260 170- 3570 485 167 6150 2980		7P MO 6A 6A WI 7A 6A VAS MO	2	1 1 1	PIONEE® MILL CC. PIONEE® MILL CC. E MAUI 1R® CD LTD AWALIAN COM. + SUG C KAUPO PANCH CO. HASEPOT PINEAPPLE CC WAILUKU SUGAR CO STATE DIV OF FORESTR E MAUI 1RR CO LTD
DOONUT ISLAND 84 -   0 00 00 00 00 00 00 00 00 00 00 00 00	50 01 K0 38 02 H0 07 03 EW 64 02 H0 84 05 WA 40 03 EW 18 03 EW 19 02 H0 24 02 H0	OLAUPOKC NOLULU A NOLULU IALUA A A NOLULU NOLULU NOLULU	3 2 5 3 3	21 33	157 47 157 50 158 02 157 54 158 00 158 00 158 00 157 54 157 52	13 565 42 170 1274 2220 5	8A 410 8A	7A W1 VAR 9A 9	7	U OF H MADINE LAS  J.L. BANNING  ENA PLANTATION CO BOAPD OF WATER SUPPLY  ANIALUA ADP CO LTD  V. VON HOLT  U S COAST + SEPRETIC  U S WEATHER BUREAU  U S CEOLOFICAL SURVEY  H S P A EXP STATION	PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2 TWIN GATES 261.3 AUKULELE 333	8543 D 8553 D 8688 D 8742 D 8744 D 8750 O	LAHAINA WAILUKU HANA WAILUKU MAKAWAO MAKAWAO LAHAINA MAKAWAO LAHAINA WAILUKU	3 3 3 1 4 4 2	20 55 20 53 20 46 21 54 20 46 20 48 20 48 20 39 20 54 20 55	156 38 156 27 156 03 156 25 156 23 156 15 156 35 156 24 156 40 156 31	2500 60 2160 85 1310 5230 75 1900 580 320		7A VAP MO 7A 8A 6A	C	S	PIONEEP MILL CO LTD  AMMALIAN COM + SUG: AST MAUI IPRIGATIO  AMMALIAN COM + SUG: AONOULU PANCH  ALEAKALA PANCH CO  PIONEEP MILL CO LTD  ALIUKU SUGAP CO  ALIUKU SUGAP CO  ALIUKU SUGAP CO
AALAKEI 724.6 22 MANAN 883 A 24 AHUKU 912 ALUUA FIPE STA 791.3 26 ALIHI 9ES SITE 777 27 AMEHAME 724.7 30 ANEOME MUKA 781 31 ANEOME RANCH 838 A 31	23 01 KO	NOLULU OLAULOA OLAULOA OLAUPOKO NOLULU OLAUPOKO OLAUPOKO OLAUPOKO	2 1 2 1 1 1 1 1	21 18 21 31 21 41 21 24 21 23 21 19 21 25	157 50 157 43 157 54 157 57 157 45 157 41 157 49	90 800 25 10 910 1380 225	яд	8A 8A 8A 11D	4 66 6	ATRAS SILVINE ARRA ATRAS SILVINA ARRA OTA DO TO THE ARRA OTA SILVINA ARRA OTA SILVINA ARRA OTA SILVINA ARRA ATRAS SILVINA ARRA	WAIKAPU 390 WAILUA 1K1 348 WAILUKU 392	9335 01 9376 0 9460 0	WAILUKU	3 1 3	20 57 20 52 20 49 20 52 20 48 20 54 20 38	156 32 156 12 156 14 156 31 156 09 156 30 156 12	300 1200 4320 472 2630 200 220	8.8	6A WAP 6A 8A OC	C		WALLUKU SUGAP CO E MAUI IPP CO LTO MAUI COUNTY WTR DEP MAILUKU SUGAP CO EAST MAUI IPRIGATIC TT, ANTHONYS BOYS HALEAKALA PANCH CO
PALLAMA 773 A 32 WANGHAPAI 841 A 37 WANGHAPAI 841 A 37 WANGEA MAUKA 906-3 38 PMOD CAMP R 855 A 43 DOLAU DAM 833 47 A1E 9C3 A 52 JALUALEI 8-4 56 JALUALEI 8-7 TINNEL 8-56	25 02 KO 18 05 WA 66 05 WA 13 01 KO 47 04 WA	NOLULU TALUA TALUA OLAUPOKO TALUA HIAWA OLAUPOKC TANAE	5 1 5 5 1 4	21 40 21 33 21 30 21 39 21 26	158.08	10 614 29 1180 1950 725 1169 113		8 A 7 A W I 7 A 8 A 7 A 7 A 7 A	c	FERRES H. SWIFT  ANALYM CHOOLS  WAIALUA ASS CO LTO  CAP OFFICES HEO  CAMUNU PLIN CO  US NAVY	AWINI 182.1 EAST HONOKANE 1838 A HAINA 214 HAKALAU 142 HALEMAUMAU 52	0840 0 0905 0 1033 0	N KOHALA S KOHALA HAMAKUA S HILO KAU	1 1 2 3 1 2	10 38 20 10 20 07 20 06 19 54 19 56 19 46 19 26 20 14	155 47 155 43 155 43 155 28 155 08 155 17 155 24 155 28 155 16 155 50	5220 1870 4240 461 105 3648 5770 9220 3971 600	711	M- WI Mo 7 7 M- M- M- M- M-	0		SREENWELL PANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTD HONOKAA SUCAP CO PEPEEREO SUGAP CO -AWAII NAT PARK KUKAIAU PANCH CO STATE DIV. OF PARKS HAWAII NAT PARK COHALA SUGAP CO COHALA SUGAP CO COHALA SUGAP CO
AKAMA VAULEY 80 -1 57 AKAPUU POINI 724 58 ANOA 712 61 ANOA TUNNEL 2 716 61 AUNAWILI 787-1 62	75 02 HO 66 04 WA 81 04 WA 60 02 HO 22 02 HO 31 02 HO 22 01 KO 95 02 HO 53 04 WA 28 02 HO	NOLULU NOLULU NOLULU NOLULU NOLULU NOLULU IANAE	2 2 1 2 4	21 ZP 21 29 21 19 21 19 21 20 21 21 21 21 21 31	157 42 159 13 158 12 157 39 157 49 157 49 157 46 157 74 158 70	40 25 160 539 220 650 410 20 4025		7A 7A 8A 8A 8A 8A 8A M1D		LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO CAPITAL INVEST CO U.S. COAST GIARD MRS.JUNN H.BEAUMONT HOARD OF HIT SUPPLY SYD. SIA. H.S.P.L. JUNN A PREBERGH FEBERAL AVIATION ADM. BOARD OF HIT SUPPLY	HILO WB AIPPOPT HOLUALOA 70 HOLUALOA 8EACH 68 HORAUNAU 27 HONOMINA 137 HONOKANE 181-1 HONOMU MAUKA 138 HONUAULA 71	1492 0: 1557 0: 1562 0: 1665 0: 1701 0:	S HILO N KONA N KONA S KONA N HILO N KOHALA S HILO N KONA	4 4 2 1 2 4 4	19 51 19 40 19 42	155 04 155 55 155 59 155 63 155 9 155 44 155 09 155 53 155 52 155 59	3220 14 1089 300 800 1100 6250 8190		MID Mn 7A 7A 7A 7A 7A 4C MO 6A	MIDC		J S WEATHER BUREAU STATE DIV OF FOREST WAPIOUS RANCH HANDS MPS MALAE W HUA PEPEEKEO SUGAP COMP OHALA DITCH CO LTD PEPEEKEO SUGAP CO- STATE DIV OF FOREST THATE DIV OF FOREST HUFFHUE PANCH
PAEULA 87 440L0 VALLEY 718 400A FLATT 794 400A FLATT 794 50RTLOCK ROAD 724-4 71 WAHIAWA 820-2 81 NALUU 884 83 NACHBOWL FRATEP 7.9 83	50 05 WA 64 02 H0 10 02 H0 33 03 FW 26 02 H0 72 05 10 01 K0 16 02 H0	TALUA NOLULU NOLULU A ROLULU	2 2 3 2 5 1 2	21 21 21 34 21 20 21 21 21 25 21 17 21 28 21 36 21 19	157 50 159 02 157 46 157 49 157 58 157 68 157 61 157 54 157 51	410 1060 995 1640 240 6 700 20 360	7A 8A	7A 410 410 50 8A 8A 8A	c	BOAPD OF WTR SUPPLY WAIALUA AGE CO. LTD HOARD OF MIR SUPPLY BOAPD OF WIR SUPPLY JAMES MUMEND GEORGE L. BRENNER PINEAPPLE RESEARCH INST KAMUKU PUTN CO. NAT MEM CEMETERY PEV R CULLINAN	KAALA IKI 12 KAAWALOA 29 KAHIAWAI 3.4 KAINALIU 73B	2249 0 2327 0 2512 0 2751 0 3048 0 3077 0 3078 0 3300 0 3369 0	KAU N KONA KAU N KONA KAU KAU S KOHALA S KOHALA	4 3 4 3 1 5 3 2	19 30 19 08 19 32 19 02 20 01 20 00 19 17 19 30	155 34 155 55 155 46 155 40 155 40 155 40 155 40 155 27 154 52 155 09	1340 1340 3700 1500 1375 2670 2669 2140 290 1123	7A 6A 8A	7A 8A 7A WI 6A	c		HUTCHINSON SUGAP CO CAPTAIN COOK COFFES KAPL EMBPEY CONA EXPEPIMENT STA HAWAIIAN PANCH CO ARKEP PANCH HAWAIIAN AIPLINES HAWAIIAN PANCH CO BOAPD OF WATER SUPP SHIGEO MASUYA
ANTALUF PLAK 78 87 87 87 87 87 87 87 87 87 87 87 87	30 02 MO 38 02 HO 15 02 HO 45 05 WA	NOLULU NOLULU HIAWA OLULU TALUA TANAE TANAE	2 2 2 5 1 2 5 4 4	21 20 21 20 21 18 21 30 21 28 21 17 21 35 21 27 21 27 21 29	167 49 157 60 157 49 158 03 157 53 167 47 158 07 158 11 158 (19	2000 1325 79 854 745 40 32 20 1575	7A	7 A 8 A 7 A 8 A W I	7 000 1	BOAPD OF WATER SUPPLY P. E. MYITE DEPT. OF SEOSCIENCE MAIAJINA ARR CO LTD MARQUE W SUTZINE MAIAMOLE WATER CO LTD CAPITAL INVEST CO CAPITAL INVEST CO MAIAHOLE WIP CO LTD MAIAHOLE WIP CO LTD MAIAHOLE WIP CO LTD	KAWAINUI LOWEP 193 /A KEAAU 92 KEAIWA CAMP 22:1 KEALAKEKUA 26:2 KEANAKOLU CAMP 124:2 KEMENA 181:2 KEMENA PESERVOIP 176:1/ KIOLAKAA A * F 6 KIPA 89:2	3770 0 3872 0 3925 0 3977 0 4098 0 4245 0 4250 0 4625 0	HAMAKUA PUNA KAU S KONA HAMAKUA N KOHALA N KOHALA	1 2 3 4 2 1 1 3 2	20 05 19 38 19 14 19 30 19 55 20 07 20 10 19 04 19 44	155 39 155 02 155 29 155 55 155 21 155 45 155 48 155 38 155 09	1080 280 1700 1450 5280 3840 2520 1925 1490	8.8	WI BA  BA  WI 7A  MO  WI BA	000		HONOKAA SUGAP CO PUNA SUGAP CO AMMAJIAN AGRI. COMP MISS AMY GREENWELL STATE DIV. OF FOPES COMALA DITCH CO LTD COMALA DITCH CO LTD STATE DIV OF FOPES AMUNA KEA SUGAR CO.
NIKANE 885 A 93 NIKIKI 717.2 NILUPE RESERVOIP 170 A 94 NILUPE VLY 'CH 723.6 95 NIMANALO 794 A 95 NIMEA 892 A 95 NIPAHU 750 A 97	40 01 x0 97 02 H0 95 02 H0	OLAUPORO NOLULU NOLULU NOLULU OLAUPORO JALUA	2 2 2 1 4	21 30 21 16 21 18 21 18 21 21 21 38	157 55 157 53 157 49 157 45 157 45 157 44 158 04 158 01 157 47	760 10 170 180 63 420 59	84	BA WL	t	WAIAHOLE WIP CO LID WAIAHOLE WIP CO COLD WAIAHOLE WIP CO LID HONOLULU JOH BOAPD OF WIP STMON STORY WAIALING AFR CO LID COAMU SUGAR CO ROAPD OF WIR SUPPLY	KOHALA MAULILI 176 KOHALA MISSION 175.1 KOIAWE LOWEP 196 KONA AIRPOPT 68.3 KUKAIAU 222 KUKUIHAELE MILL 206 KULANI CAMP 79 KULANI CAMP 79 KULANI MAUKA 76 KULANI MAUKA 76 KULANI MAUKA 76 KU	4675 0 4680 0 4685 0 4764 0 4815 0 4928 0 4938 0 5011 0	N KOHALA N KOHALA HAMAKUA N KONA HAMAKUA HAMAKUA HAMAKUA S HILO	1 1 1 4 1 1 1 2 5	20 13 20 14 20 05 19 39 20 02 20 07 20 08 19 33 19 35	155 47 155 48 155 38 156 01 155 21 159 35 155 34 155 18 155 27	960 537 720 15 840 980 300 5170 8300	8A 8A	7_ 8A WI 8= 6A 6A 6A 8A WI			COMALA SUGAP CO COMALA SUGAR CO L LYMAN BOND HONOKAA SUGAP CO HAWAIIAN AIPLINES HAWAIUA MILL CO HONOKAA SUGAP CO HONOKAA SUGAP CO ST DEPI OF SOCIAL S J S MEATHER BUREAU J S MEATHER BUREAU
LMALO MAUKA 542.6 30 LUNAKAKAI 536 A 35 LUNAKAKAI 536 5 3A EONELELE PENN 551 A 43 JALADU 536 A 47 PULEHU 542 61 LUNALOA 511 61	96 01 M0 46 01 M0 41 01 M0 47 01 M0 94 01 M0 78 01 M0 38 01 M0 90 01 M0 34 01 M0 49 01 M0	LOKAI LOKAI LOKAI LOKAI LOKAI	1 1 1 1 1	21 06 21 06 21 12 21 09 21 04	156 59 156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06 156 44	30 60 12 70 560 878 20 1075 450 700		6A WK 7A 8A 9A 8A 6A		KALAUPAPA SETTLEMENT W. J. CAPSTEN MOLOKAI PANCH LTD MOLOKAI GENERAL HOSPIT- MOLOKAI RANCH, LTD, CALIEOPNIA PNG CORP M S.P. A LIBSY MCNITLL + LIBBY ALOHA AIPLINE'S PUUMHONU DANCH	KULANI SCHOOL SITE 78 A LALAMILO FLD OFF 191.1 LANIHAU 68 C LAVA TREE PAPK 66.1 MANUKA 2 MANUKA 2 MANUKA 2 MODLE PON 147.1 MODULE PIN 147.1 MODULTAIN VIEW 91 NAGLEHU 14	5260 0. 5330 0. 5460 0. 6134 0. 6198 0. 6268 0.	S KOHALA N KONA PUNA KAU HAMAKUA N KONA N KOHALA KAU PUNA	1 4 2 3 5 4 1 3 2	20 01 19 40 19 29 19 07 19 32 19 37 20 06 19 11 19 33	155 20 155 41 155 58 154 54 155 50 155 35 155 50 155 30 155 35	5735 2615 1530 650 1760 11146 475 1380 600 1530 673	MIS		X.		ST DEPT OF SOCIAL S STATE DEPT OF L + N CONA EXPERIMENT STA STATE DIV. OF PAPKS STATE DIVISION OF P J S WEATHER BUPEAU CONA EXPERIMENT STA CAHUA PANCH HAWAIIAN PANCH CO UNA SUGAP CO UNA SUGAP CO UNTENNO SUGAP CO

20

STATION	INDEX NO.	DISTRICT	INAGE 1	TITUDE	ONGITUDE	VATION	T	ERVA IME A TABLE	ND S	OBSERVER	STATION	X NO.	NOIS	DISTRICT	AGE ‡	TITUDE	ITUDE	ATION	TII	ERVA ME AI ABLE	ND	ORGERVER
	IN I	1	DRA	Ĭ,	TON	ELE	TEMP	PRECIP	SPECIAL			INDEX	DIVISI		DRAIN	LATI	LONGIT	ELEV	TEMP.	EVAP.	SPECIAL	OBSERVER
PUAKO 95A PUU KAPU 192.1	7131 0 7166 0 7165 0 7204 0 7312 0 7421 0 7457 0 A 7643 0 7711 0 8000 0 A 8051 0 8051 0 8186 0 8186 0 A 8383 0 A 8383 0	2 PUNA 1 N KOHALA 2 N HILO 4 S KOHA 2 PUNA 1 HAMAKUA 3 KAU 2 PUNA 3 KA' 2 S HILO 2 S HILO 2 S HILO 2 S HILO	212442113222222222222222222222222222222	19 19 20 14 20 01 19 16 19 34 20 05 20 03 19 12 19 30 19 47 19 47 19 54 19 45 19 59 20 02 19 54	155 55 155 08 155 45 155 17 155 53 155 53 155 00 155 22 155 29 155 06 155 06 155 06 155 06 155 05 155 52 155 52 155 52 155 53 155 55 155 55 15		7A 7A	WI- VAR 664 74 74 75 67 74 67 74 MO 74 MO MO MO MO MO MO MO MO MO MO MO MO MO		CONF. EMPERIMENT STA MANALI VOLCHAOCS VAT PR KOMALA SUGAR CO MISS CLEONAGE SUGAR CO MISS CLEONAGE SUPPLY MANACUA MILL CO MANACUA MILL CO MANAC	PUU MALI 113 A PUUOKUMAU 167 PUU OO 82 PUU WAAWAA 94.1 SAODLE ROAD 1 84 A SOUTH POINT COPPAL 3 A S POINT TPACKING STA	8515 8548 8550 8555 8590 8675 8679 8780 8830	01 01 02 05 02 03 03 01	KAU	1 1 2 5 2 3 3 1 1 2	19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15	155 49 155 26 155 50 155 23 155 12 155 41 155 41 155 23 155 53 155 53 155 67	4856 6960 18000 6340 23400 305 3420 1050 3830	84	HO MO 7A 6A 7A WM WI 7A 8A 7A	, k	GPEENWELL PANCH KUKAIAU PANCH CO YOHALA OITCH CO LT ON HE SHIPMAN LTON BOARD OF WTS SUPPLY HUTCHINSON SUGAR CO FFOEPAL ELECTRIC COP U S COAST OURPO STHILCH KAMESHIRO KAHUA PANCH

TRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO INTRA-ISLAND DIVISIONS) LANAI: 1-(NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Bavaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P O. Box 3650, Bonolulu, Hawaii, or to any Weather Bureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA BRAAII"

Dimensional Units: Unless otherwise indicated, dimensional units used in this bulietin are Temperature in 'F', precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant wind in the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME Data in the "Monthly Extremes"; "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Index . The Station Index shows observation time in local extendard time.

evaluate time.

Example 100 is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind"

Table. Max and Min 1n "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

MORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Hawaii etate key numbers are included following etation names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- + And also on an earlier date or dates
- ++ Highest observed one minute windspeed . This wtation is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown.
- A The letter "A" shown following station mame in "Climatological Data" table, "Daily Precipitation" table, and "Station Index", indicates amount carrier in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- 8 Adjusted to a full month.
- J "Supplemental Data" table
- W One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage
- T Trace, an amount too small to measure
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- ${\tt AR}$  -Observation made after rain.
- In Special Column of Station Index indicates Recording Rain Gage Station. Houris precipitation values are processed for special purposes, and are published later in the "Mouris Precipitation Data" buileting it is described in "Climatological Bata" buileting they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bouris" precipitation Data" buileting.
- MO Gage read once montbly, usually on the last day
- OC Gage readings at periods varying from a few weeks to several months
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset
- VAR Observation time is variable
- WI Gage read weekly or irregularly only
- WM Gage read weekly and last day of month
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

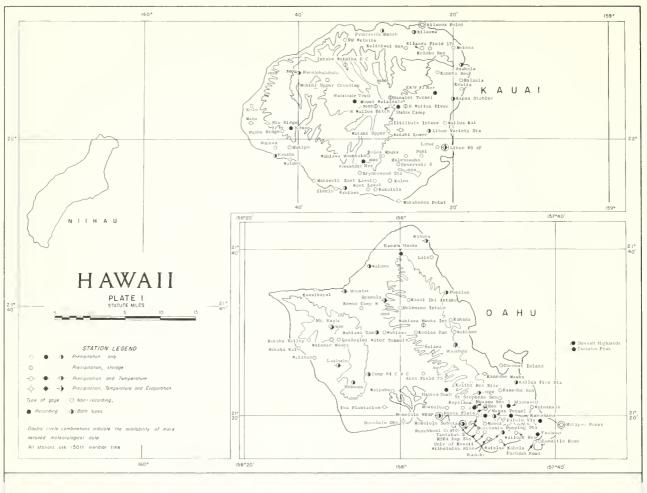
Stations appearing in the Index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue.

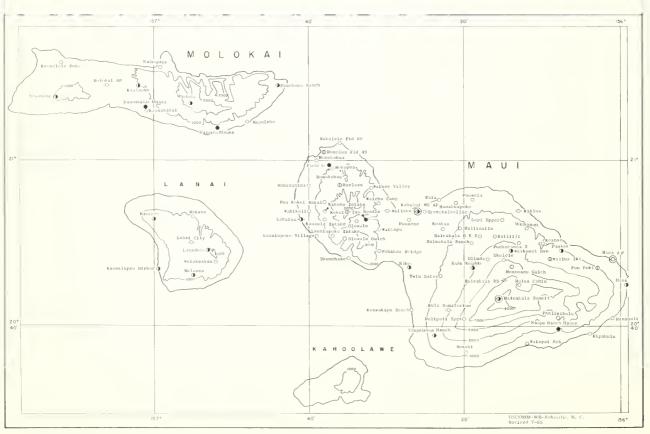
General weather conditions in the U. S. for each month are described in the publications MONTRLY WEATHER REVIEW, MONTRLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Pating Office, Machington, D. C. 20402.

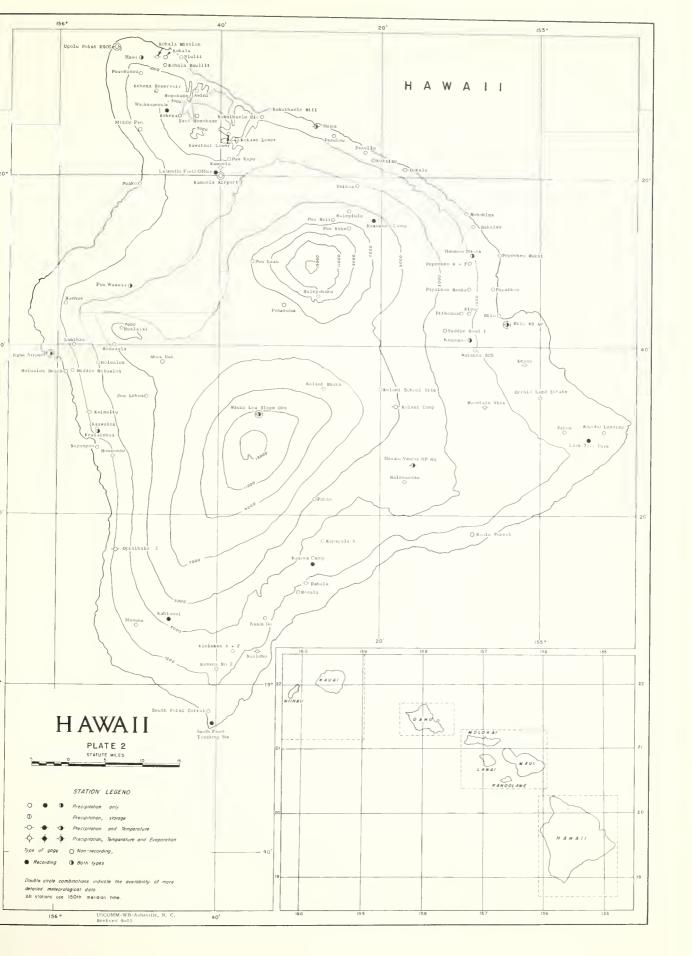
Information concerning the bistory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Bistory" for this State, price 40 cents. Similar information for regular Weather Eureau etations may be found in the latest annual issue of Local Climatological Data, price 16 cents. These publications may be obtained from the Superintendent of Documents the Address shown above.

Subscription Price 20 cents per copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Sunnary.) Checks and zoney orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Namingions, D. C. 204027.

USCOMM-ESSA-ASHEVILLE- 5/29/67-625











**CLIMATOLO** 

U. S. DEPARTMENT OF COMMERCE
ALEXANDER B THOWBRIDGE, SOCIETALLY

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE

HAWAII MARCH 1967

Volume 63 No. 3

# CLIMATOLOGICAL DATA

						perot					No.	of Da		TECH.				oitation Sno	w, Sleet		N	lo, of	Da
Station		Average Moximum	Averoge Minimum	Average	Departure From Normol	Highest	Date	Lowest	Dote		Max.		Min.	Total	Deporture From Normal	Greatest Doy	Date	Totol	Mox Depth on Ground	Dote	.10 or More	.50 or More	
* * * ISLANO OF KAUAI																							
NAHOLA 1111 ANALOHULUHULU 1075 APAA STABLES 1104 ILAUEA FIELO 17 1135 ILAUEA POINT 1133	A A	65.3	50.5 66.6	57.9 72.0		70 84	19+		15+				0	10.74 11.43 13.01 19.79 10.74	4.53 9.91	1.98	N	.0 .0 .0	0		15	10	
COLOA 936 .IHUE WB AIRPORT IANA 1026 H WAILUA OITCH 1051 PH WAINIHA 1115	A R	76.7 80.0	66.1 63.8	71.4 71.9	.4 .7	81 85	17+	58 59	14 7+				0	14.01 8.91 7.50 25.72 27.80	7.38 4.35 4.85	3.57 1.54 2.43 4.50	21	.0 .0 .0	0		12 12		
PUEHU RIDGE 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	A	75.3	59.9	67.6		80	18+	52	14		0	0	0	8.27 7.40 19.70 5.61	3.90 3.25	2.41 1.51 2.28 1.14	22	.0 .0	0		10 22 11	10	
ISLANO  * * * ISLANO OF OAHU				68.2										13.62				•0					
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU OAM 833	R	80.1 77.0M 76.5	67.4 64.4M 66.4	73.8 70.7M 71.5	1.0 - 1.1 .2	86	31+ 13 19	57	16+ 16+ 18	- 1	0	0	0	4.83 6.78 7.42 10.42 12.56	3.89 2.68 3.16 2.58	1.95 2.53 2.38 2.80 3.06	22 7 22	.0 .0 .0	0		8 5 15 13	7	
_UALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 PAEULA 870 PALOLO VALLEY 718		74.7 75.1	67.1	70.9 68.7	1.9		24+		15				0	6.21 5.94 15.96 9.86 24.88	2.02 3.95 3.65 12.03	2.40 1.23 3.54 4.80 6.20	18 22 7	.0 .0	0		8 12 17 21	12	
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA OAM 863 WAIAHOLE 837 WAIALUA 847	A A	76.9	62.0	70.9	.6		31+		16				0	9.83 11.61 9.72 22.78 8.45	7.95 4.95	3.13 3.00 3.51 6.55 3.14	23 23	.0			10	3	П
WAIKIKI 717.2 WAIPAHU 750 ISLANO	A	81.5	66.0	73.8		86		59	15		0	0	0	6.52 6.06 10.58	2.88	2.05 2.06		•0	(		7	5	
ISLANO OF MOLOKAI																							ĺ
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	A	76.8	66.2	71.5		82	30	60	17+		0	0	0	10.51 12.78 8.63 9.40	5.95 8.56 4.86	5.00 3.48 2.80	7	•0		0	12	- 1	1
ISLANO				71.5										10.33				•0					
ISLANO OF LANAI  LANAI CITY 672  ISLANO		73.7	61.7	67.7 67.7	1.7	77	30+	57	4		0	0	0	10.09	5.76	2.77	18	•0			11	5	
ISLANO OF MAUI  HALEAKALA B E S 434 HALEAKALA RS 338	A	59.1	44.0	51.6		66	30+	37	5		0	0	0	12.12	2.91	3.19	24	•0	) (	0	13	4	
HANA AIRPORT HONOKOHUA 493 KAHULUI WB AP	A R	78.0	66.3	72.2	1.0	83	13	59 57 58	3		0	0	0	17.19 15.27 10.90	11.19 8.68 5.82	3.82 4.88 4.31	24	•0			15 8 19	3	3
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	A	76.4 69.2 81.7	55.0 63.2	62.1 72.5	.9	74		49 58	3		0	0	000	22.80 11.33 10.55 8.26	1.77 7.25 6.33	2.71 2.80 2.21	24	.0			15 11 8	5	
PA1A 406 WAILUKU 392 ISLANO		80.0	63.8	71.9 67.4	.4	85	7	59	15		0	0	0	9.18 14.08	5.13 10.33	4.81	. 24	•0			10	4	

## CLIMATOLOGICAL DATA

CONTINUED																				HAWA MARC		1	967	7
					Теп	pera	ture											Precij	pitotion					
												No. o	Day	/5					Sno	w, Sleet		N	la. af	Doys
Station		• E	υĒ	0	Departure Fram Narmal	_				Doys	٨	Aax.	M	Ain.		ure	st Day			x. Depth Graund		More	Mare	More
		Average Maximum	Average Minimum	Average	Depart Fram N	Highest	Date	Lawest	Dote	Degree	90° or	32° or Below	32° or Below	0° or Below	Tatal	Departure Fram Narmo	Greatest Day	Date	Tatal	Mox. D	Date	.10 ar /	.50 ar /	1.00 ar
* * * ISLANO OF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT HUEHUE 92A	R A	75.0 65.8 80.7	60.5 52.1 67.4	67.8 59.0 74.1	- 1.7 1.1 3.5	72 88	17	57 45 62			0	0 0	0 0	1	10.41 10.67 9.46 4.05	1.85 = 1.31 = 5.24	3.85 2.32 2.62	24	.0 .0	0000		16 21 15	5 7 5	2 1 3
KAINALIU 73B KAMUELA AIRPORT		77.2	55.0	68.8		76	18+ I7	56 49	9+			0	0		2.98	.39	1.97	18	•0	0		9	5	1 0
KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1	A	79.8	63.2	71.5 70.1	1.2	84 81	27+ 27+	60 59	6+		0	0	0		11.86 5.52 5.67	- 3.72	2.76 1.96	28	.0	0		19	6	1
KONA AIRPORT 68.3		80.3	64.3	72.3		82	28+	63	22+		٥	0	0		1.57		.75	18	•0	٥		5	1	0
KUKUIHAELE HIC 199 KULANI CAMP 79 PAHALA 21 POHAKULOA 107 PUAKO 95A	A	64.2M 76.5	47.4M 61.2	55.8M 68.9	.0	69 81	12 26	41 56	3 2		0		0		8.75 7.85 7.88 2.77 2.33	2.30	2.25 I.10 1.13	11 25	.0 .0 .0	00000		16 22 13	4 6 7	2 1 3
PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCO 88.2															7.29 7.09 15.42	4.08 - 5.64	1.20 1.65 3.25	23	.0 .0	0 0		14	7 5 12	2 1 5
ISLANO				67.2											7.07				•0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 88° CN THE 17TH AT HILO WE AIRPORT, HAWAII

LOWEST TEMPERATURE: 29° ON THE 3D AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 45.80 INCHES AT KAHANA 883, OAHU

LEAST TOTAL PRECIPITATION: 1.57 INCHES AT KONA AIRPORT 683, HAWAII

GREATEST ONE-DAY PRECIPITATION: 7.66 INCHES ON THE 220 AT PAUOA FLATS 784, OAHU

#### SPECIAL WEATHER SUMMARY

March was wet on all the islands but Hawaii. Not only did rainfall in many parts of the State considerably exceed the mean, but the frequency of showers and extensive cloudiness gave the month a decidedly dull and rainy character. Honolulu Airport, for example, recorded only 40 percent of possible sunshine for the month, as against a March average of 71 percent, and had 16 days with .01 inch or more of rain -- twice the monthly mean of 8.

Two periods of heavy rain, centered on Maui, did considerable damage on that island on the 17th and 24th and produced high monthly totals. For example, Olowalu, an ordinarily dry station in southwestern west Maui, had 12.14 inches for the month, more than six times its March average and well over its annual mean of 11.63 inches.

The rain which began on Maui on the afternoon of the 17th was associated with a band of converging winds in advance of a slowly approaching cold front, and with a low pressure area higher in the atmosphere. Amounts were greatest in the northern portion of west Maui, where some 24-hour totals exceeded 7 inches. A recording gage in that area registered 7.25 inches in 5-1/2 hours, of which 6.60 inches fell in 3 hours (from 1:00 to 4:00 p.m.) and 3.25 inches in a single hour -- the latter intensity having the frequency of a 100-year storm.

The greatest damage occurred in the Napili Bay - Honokohua area, when a break in an earth-fill dam sent flood waters and mud racing through the ground floor of two resort hotels, damaging furnishings, grounds, and cars; and sweeping two automobiles out to sea. Beaches were severely eroded, part of one hotel undermined, and a large area left covered with mud and debris. The cost of restoring the hotels and the earth embankment was estimated at \$32,000 and \$18,000, respectively. Between Olowalu and Honolua, minor damage was done to highways, roads, and private property.

Flooding and erosion losses to crops and fields were estimated at over \$20,000.

During the rain, hail "the size of marbles" was reported from the Iao Valley-Wailuku-Haleakala Summit area, but it appears to have caused no damage.

On the 22d, downpours and local flooding hit the Napili area again, but this time did little harm.

Under the influence of surface and upper-level

regions of low pressure the unsettled weather continued. Heavy rain began on Maui again on the evening of the 23d. This time amounts were greatest in central Maui. Wailuku and Kahului Airport had 24-hour totals of approximately 5 inches and Haleakala Summit 5.90 inches, of which 4.15 inches fell between 2:00 a.m. and 8:00 a.m. on the 24th. Olowalu reported 6.50 inches, and Kihei 5.97 inches between midnight and 6:30 a.m. In contrast, the Honokohua coast, scene of the previous week's flooding, received storm totals of only 1 to 2 inches.

Rain and damage appeared to have been greatest in the Kihei area, where some 24-hour amounts exceeded 7 inches. Residents of its Kamaole section described the floods as the worst in many years. The inability of channels and road culverts to control the rain waters, and the blockage of stream outlets at Maalaea Bay, contributed to damage. Roads were impassable, with water between 2 and 3 feet deep in many places. Washouts were common, and crops, farm roads, and other farm improvements damaged. However, there were no personal injuries or loss of livestock or lives. Storm losses were estimated at \$65,000 for public and private property and \$6,000 for agriculture.

At Olowalu, damage was generally light. Olowalu stream overflowed at a debris-clogged highway bridge, temporarily closing the highway and badly damaging one home. Agricultural losses were limited to young cane plantings, diversion and irrigation systems, and farm roads. Private yards, patios, and garages were also damaged by silt and water.

For the March 17 to 24 storm period as a whole, Maui County estimated \$89,000 in damage to roads and bridges and total costs as high as \$250,000.

The rains of the 24th also brought minor flood damage to crops and roads on Kauai and Oahu, while in the Hoolehua area of Molokai, highway damage was estimated at \$1,000.

On the 29th of the month, strong winds did about \$5,500 damage to three boats in Kailua Bay, Hawaii, and produced 10- to 12-foot surf in Hana Bay, Maui.

By month's end, rainfall nearly everywhere was well above normal, although on Oahu and even on Maui a few scattered gages reported less than their March average. On the island of Hawaii rainfall was everywhere near normal.

Saul Price ESSA-Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

																																HAWA1 MARCH		1967
Station		Loral	-		0			т.	_	7	0	0	10	- 11	10	_	of N		16	17	18	20	20	21	22	20	24	25	20	27	20	20	20	01
ISLANO OF KAUAL	+	- 1		2	3	4	5	6		/	8	9	10	11	12	13	14	15	16	1/	18	19	20	21	22	23	24	25	26	2/	28	29	30	31
EAST LAWAI 934 ELEELE 927	A 13 A 6	.74 .14 .16 .08 .26	01	.06 .05		* * * * * * * * * * * * * * * * * * * *		1.	50 38 38	27	.05 .14	.38 .25 .19 .03	T	* * * *	*	1.17 .83 .79 .75	* 01 T		.22	.38 .10 .05	* * *	* * * * * * * * * * * * * * * * * * * *	1.26	2.00	1.75 2.22 .87	1.09 1.17 1.72 .38 1.20	:	0 0		1.95 1.04 1.55 .10 2.63	.98 1.23 1.27	.01 .02 .01	•01	.03 .01 .06
HALENANAMO 1006 HUK1RO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 (ALIHIWAI RES 1131	A 23	.18 .69 .55 *	10	.09 .55 *	.08	.60	* 20 *	0 .2	22	75 07 36 35 76	•33 •30 •17	.64 .07 .80	.02 .07 .05		.62 8	.65 .77 .32 .63	* .68	*		•13 •18 •35	1.65	.05	.32 .30	2.31	2.00	1 • 36 • 56 2 • 34 3 • 35 2 • 52	1.27	.30 1.49	1.95	2.47 2.00 5.25 7.96	4.00	.04 .25	.30	.08 .18 .20 2.31
CAPAA STABLES 1104	A 13 A 12		03	.06		.09	*	.6	55 1. 30 .	53	•12 •10 •05 •25	.04 .93 1.47 1.37		.06	.63 #	•72 •48 •75	.03 .22	•02	.02 .10 .12	.12 .30 .25 .29		* * * * * * * * * * * * * * * * * * * *	1.59	1.58 1.03	1.16	1.26 2.05 .93 .60	*	*	.03	.02 6.01 3.22 1.99	1.12	•15 •53	•25 •06 •09	•13 •05 •02 •03
KILAUEA 1134 KILAUEA FIELD 17 1135 KILAUEA POINT 1133 KOLO 1033 KOLO 936	10.	79 .	11	.02 .10 .01	.07	.05	# +40	. 2	23 1.	54 68 47	.64 .18 .02	.02 .61	.02 .05 .09 .22	:	.24	.87 .73 .01 .98	•12		.01	.03 .01 .20	:	.45	•75 •93	1.59	1.04	1.03 2.50 3.20 .35 1.11	• 25	* 24 * 24	.08	.47 .37	1.27	.01 .04 .02	.04 .07 .05	•12 •46 •19
	A 17. A 9.	90 84 89 93	1	•15 •07 •01 •15	.03	* * *46	:	1.0	8 1.	46	.35 .73 .14 .85	.30 .07 .21 .01	.02	:	•	.96 1.48 .64 .38	.16	.01	.03	.04 .16 .42	•06	*	.72 .91	1.26	1.55 2.35 2.22	1.29 1.94 .81 1.10 1.22	* 1 • 61	.08		2.54 5.91 .57 .85 2.32	1.20 1.12 1.10	.01 .01 .02	.07	•10 •28 •15
.IHUE W8 AIRPORT I MAKAHUENA POINT MAKAHELI 965 MANA 1026 MOHIHI UPR CROSS 1083	R 8.	91 •0 .02 .06	)2	T •07	.07	.01	.79	1.5	5	29	.54 .40 .03	.02	.01	.05	.29 .01	2.07		.01	•20 •04	.50 .06 .04	.25		1.75	1.45 .91 .94 2.43	4.07	1.31 .99 .03 .40	.03	.02	.03		.04 .83	,01	.10	.04
	25.	72 .1	9	•42 •05	.13	* •01		.6 .5 1.3	19 .	68 60	.85 .42 T	.12 .05 .97 .01	.75	.04		1.25 .80 .92 1.30	.35	.02	.31	.32 .06 .28	* 11 * 02 * 06		2.79	1.18	1.22 2.90 3.94	1.55 2.02 2.78 1.85	4.50	1.15		3.50	.70 4.10 1.08	•20 •01 T	.09	•01 •42 •04 •16
ULHU RIOGE 1040 ULHI 1013 (ESERVOIR 6 1004 (AHIAWA 930	8 11 A 13 A	.27 .46 .92		.08 .09	.07	*		1.2	2 .	03	.70	.05		:	:	1.06 .49 .75	Ţ		.07	.42 .15 .10	.30		1.30 .60	2.41	.34 2.20 2.11		:			.49	.72 1.01 1.41	•02 T	.04	.05 .01 .06 T
AIAHI LOWER 1054 AIAHI UPPER 1052 AIAWA 943 AILUA KAI 1065 AIMEA 947	19. 22. 5. A 13.	70 .0 39 .1	3 .	.32	.08	.38 .22			1 .	73 68	.12 .23 .05 .06	.82 .72	.02 .03	.22	.21	7 .83 7 .09 1.08		.03				.02	.35 .57	2.00	2.10 .23 2.49	2.08 2.55 .46 .83	.66	1.55		1.77	2.55	.47	.05 .50	•12
	A 10.			•02		٠	•	1.5			•06		T			.58	Т	.02		.04						1.09		*	•	.87	1.11	T	.01	
LEA FIELO 625 761 ERETANIA PUMPING STA AMP 84 C P C 807 OCONUT ISLANO 840.1 WA PLANTATION 741	8 · 8 · 5 ·	.35 21 T .43 = 44		*		* *		.5	2 1. 3 2. 6 2. 1.	30 00 20	.02 T .09 .21		.10 .18 *	.68	*	.54 T .76 .12	.28 .08 .12	٠		.01 .05	* 42 •1	*	• 45 • 03	.99 1.73 1.39 .51	.34 .57	3.81 2.50 2.36 1.59 1.60	* 1 *	.30	* * 12	.13	•09 •26	T * • 01	T •01 •03	•15 •09 •02 •12
ELEMANO INTAKE 881 A OKULOA 725.2 A ONOLULU OBSERV 702.2 ONOLULU WBAP 703 F ONOLULU SUBSTA 704	A 9.	68 * 40 * 83 T 49		. 35	* T	.02	*	.0	7 1.	06 01	• • 01	3.69 * .03	.06 .05	.15 1.29	3.71 .01	.18	.14	:	*	* •12 •02 •07	:	*	1.39	.80	2.53	3.33 * 1.95 .21	.03	:	# # T	.49 * .04	1.70 .19 .05	:	# * T •04	.26 1.60 .02
S P A EXP STA 707 AHANA 883 AHUKU 912 ALLUA FIRE STA 791.3 ALIHI RES SITE 777	A 45.	28 80 2.5 42 .0 95 80 .0	1 .	T .02	.88	.01 .14	•	.0 6.3 T 2.3	2 · 1 ·	38 73	.01 .16 .29	.01 .94	.17 .04 .23	.83 .05	:	T 4.62 .84 .18	• •16 •10	•		.07 .02 .18	.01		1.16	•49	.19	1.95	. 26		* •05	.20 27.40 .17 .02 1.30	•19 1•08	•01	T •	.22 3.70 .03 .08
ANEOHE MAUKA 781 ANEOHE RANCH 838 APALAMA 773 AWAIHAPAI 841 AWAI IKI INTAKE 880.2		90 .0 22 58		•07 T	Т	.02		.0	4 3.	02 70	.11 .30	.06	.83 * .12 .04	.06	.04	.04 1.02	.62 .85 .11 .59	.01 .35 .48	*	.42 .01 .58	.88 .15	.01	.62 1 .32 .35	1.66		.99 1.57 .42 2.00	.93		.33 *		1.76	.04	.10 .03 .20	-17
EMOO CAMP 8 855 A OOLAU OAM 833 AIE 903 A UALUALEI 804 UALUALEI WTR TUNNEL A	12.			•02			.07	1.1	7 1. 1 2. 1 2.	15 13 40	.27 .04 .26 .04	.01 T	.05 .13 .02	. 56	.01	.05 .25 1.17	•56 •41 •22			.43	.38 .25	.50		.73	2.40	2.41 3.06 2.30 1.30	• 02 •	.03	.02		•18 •21 •23 •19	Ţ	.01	.13 1.89 .20
UNALILO HOME 724.2 AKAHA KAI 796 AKAHA VALLEY 800.1 AKAPUU POINT 724 ANOA 712	8 . 6 . 7 .	39 86 54 94		•01 •11				. 0	1. 2. 2. 1.	12 84 20		}	.23	.25 .47 .22		.18 .55 .31	.08 .06 .11		•	2.02 .28 .58	•18 •16 1•2			•73 •90 •91	.52 .38	2.55 1.59 2.08 .54 3.17	•53		.07	.18	.47 .45	•15	•	•10 •02
ANOA TUNNEL 2 716 OANALUA 770 UUANU RES 4 783 UUANU RESERVOIR 5 775 RAEULA 870	28. 7. 15. A 15.	.30 .3 .67	8		.26	.04		3.3	2 1.	06 34 08 32	.01	.72	.14 .10 .18 .32	.14	.10	.52 .07 .44 1.03	.58			1.02 .02 .52 .09	•02	•02	1.18	1.58 1.58 2.40	7.56 .67 3.54	1.82 2.82 .60 5.38 2.35	.7= .03	3.00	1.96	1.74 .06	.32 .14 .04	.22	.70	.82 .12 .92 1.02
ALOLO VALLEY 718 AUOA FLATS 784 ORTLOCK ROAO 724,4 R1 WAHIAWA 820,2 UNALUU 884	24 a 29 a 7 a 9 a	.88 .4 .56 .5 .35 .0	1	.04	.26 1.04	.12	.06	3.1 2.9	6 .	24 10 46 85		.90 1.36 .03	.06			.86 .56 .17 .91	.31			1.10 .62 2.05 .04		8	.05	.24 .60 .53	6.20 7.66 .54	1.52	1.06 .92 .45	2.22 1.92 .09	1.84	1.44 2.00 .03	•32 •22 •14 •20	.10 .28	.26 .82 .05	.74 2.00
UNCHBOWL CRATER 709 IT STEPHENS 5EM 788 ANTALUS 2 780.5 NIV OF HAWAII 713 AHIAWA DAM 863	A 6 13 15 A 9 4	.89 .19 T .85 .97 T		.01	•01	.01 .14 .34	+14 n	T .0	2 .	02 25 14 39	.02	•01		1.08	.01	.16 .02 1.72	1.01			.06	.05 1.00 .16	.01	•58	1.90 1.56 1.82	.42 .12 .97	2.60	.13 1.11 .15		.01	.14 .39 1.21	.08 .32	T •02	.08 .16 T	.14 .17 .85
Alahole 837 Alalae Kahala 715 Alalua 847 Alanae 798 Alanae Mauka 803	A 22.	.78 .0 .21 .45 T		.22	. 11		,		8 3.	46 02 14 57	.32	.09 .03 T	.43	.65 .02		.19 .01 .53	.69				.39 .63	*	.06	.36	1.45 .11 .63	6.55 2.06 1.98 2.03	* •15	* 16	.01	5.10	1.33 .12 .14	.03 T	.02	. 69
A1AWA 836 AIKANE 885 A1KIKI 717.2 A1LUPE RESERVOIR 170	A 17.	.20 • .06 1•0 .52	4	.08	.11	.01	R P	* • 6 T	1.	12	*	1.67	3.23		.02		*	* *	1.91	.76		*	* •90	1.15		7.46 2.05 2.70	.20	*	*	10.45 T	* * * * * * * * * * * * * * * * * * * *	1.74	3.80	5.63 1.71 T
AIMANALO 794  AIMEA 892 AIPAHU 750 ILHELMINA RISE 721	A 6.	.17 .37 .06 .94 .0		1	Т			• 1	3 · 3 · 8 · •	28	•16 •07 •02	.02	.09	.79		.42 .45	.32 .40 .34			.03		*	.42	•93	.40	2.00 1.62 2.06 1.10	:	.14	* * * * * * * * * * * * * * * * * * * *	.55 .02	•92 •15 •22 •10	•01 T		•01 •36 T •10

See reference notes following Station. Inde

Continued																HAWAI:	1967															
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	lonth 15	16	17	18	19	20	21	22	23	24	25	26	27	28			
15LANO OF MOLOKAI																					20			20	24	23	20	21	28	29	30	31
KAUNAKAKAI 536 A KEONELELE PENS 551 A KUALAPUU 534 A MAPULEHU 542	14.40 6.66 9.13 10.51 12.78	T * •	• • 03	.09	*	:	T	2.73	+31 4+28	T *	.18		:	.10 * *	.60 * .55	:	•	1.79		T e e	T * 2.95	.20 	.75 .65	1.90 .93 .92 1.07	.91 *	:	* * * * * * * * * * * * * * * * * * *	2.32	.70 e 1.59	T *	T *	* .
	8.63 9.40 14.34 20.60	T *	• 01	*	.35	:	.63 4.36	3.48 2.80 1.34		:	.11	*10	T e e	1.37 5.03	*05 •14 •27	T *	*	.07 1.24	2.75	* T * *	1.71 * 2.70	•29 •13 •24	.47 2.28	.90 .84 3.10	1.28	* •43 2•15	* .08 .10	* T •10 8•51	1.08	*	:	.18 .
KANEPUU 690 A	9.67									4.46							.13															
LANAIHALE 684 A MAHANA 694 A	7.18 10.09 6.32 7.38	:	•06		.02	T *	T	2.38	•22 •87 •	.02 1.86	T	.13	T s	•02	*	*	.18	*	2.77	.03	2.19		.14	• 56	1.88	• 26	.10	.01	1 + 78 T	•02	*0I	011 0 4022 0 7038 0
MALAUEA 676 A WAIAKEAKUA 685	7.68			•	•	*	.07	•	2.86	3 + 2 4	*	•	•	• 26	*	•	T	*	•	•	2 • 6 5	.49	* •22	3.51	*	*	*	3.02	*	*		.93 · .17 ·
ISLANO OF MAUL																																
HALEAKALA B E S 434 A HALEAKALA RANCH 432 A HALEAKALA RS 338	9.24 12.12 9.03 9.83 15.62	.29 .03	.02				* .03	** •15 •16 •11	.02	.42	.02	• 12 •11 •20	1.02 .45 .23	.97	.27 .14	* * 01	.10	.08	1.44 1.06 1.99	* T 2.65	2.06 * .10 .88	•16 •10 •30 •35	.33	2.15	3.19	1.47 1.34 2.40	.42	3.60 .95 .11 .29	.01		•02 8	.05 . .02 .
HANA 354 HANA AIRPORT	9.08 9.84 9.89 17.19 12.66	.11 .21 .04	.02 .18	.13 .14	.02 .21	•01	.38	.22 .25	•17 •10	.39	.04	* 16	.02 T	.22 T	.12 .09 1.03 1.20	Ť		3.82	2.06 .93 1.82	* T	1.35	.08 .06 .93	•21 •52 •57		* 1.25 2.47	* 4.06 .18 1.00	* •37 •07	4.93 .22	.02	T	1.01	.02 .
HOLUA CABIN 259.5 A I HONOKOHAU 480 A I HONOKOHUA 493 A I	14.00 13.60 15.27	.02	.03		:		.45	. 95	.27	.36	.41	:		.12	.38		.01	:	1.60	:	* * 5.87	.13	.76	1.73 * 3.99	2.30	*65	.27	.17	.06 * 2.74	* 07	. 06	1.57 . 4.00 . 3.60 . .25 .
KAHOMA INTAKE 374 A   1	16.86	* T	•	2+27	*	•	.21	.07	•	e T	.18	* T		.04	.01	•	•	•15 3•07	•		.06	• 12	.34	* 1.45		. 44	• 1	2.13 T	* T	:	* T	3.62 . .65 .
KALLUA 446 KAUAULA INTAKE 375 A I	13.79 18.00 10.05 9.51	*34 # T	.61	.03	.45	.47	.03	.10	.02		.35	•10 •08	.04	.01 T	.02	•	.03	.21	1.18	* • •	,	.08		2.56 4.00 .95	1.57	1.12	.97	.95 5.20	.28 .01		* 14	3.79 . .34 . .34 .
KEAWAKAPU BEACH 260.2 KIME1 311 .1 KIPAHULU 258 .1	9.76 11.03 11.33 9.87	*	• 35		.71	.10	•	* 04 *15 *14	• 03 •13	•	.20 .67	.04 .55	.01		• 02	•	• 09	1.91	* 1.85 1.32 2.10	•	• 01	* 14 •12 •05 •22	.37 .08 .62		6.13 6.72 1.78 4.35		• 30	.12	• 06			2.80 .
KULA SANATORIUM 267	10.55 8.26 16.00						.09	.09	•10 •24		.02	.15	.14		.08				2.45		.59	•20	.19		2.80	2.15	.04	.04	•03		.39	.05 .
LAUNIUPOKO VILLAGE 372 A 1 LUPI UPPER 442 A 1	11.98	•						1.63	.50			.25							3.57			.33	.10	1.40	4.05	•12						6.00 . .03 . 8.00 .
NAKALELE -FLD 60-497 A I DL1N0A 332 A I OLOWALU 296 I	11.45 12.86 10.02 12.14 21.00	* .02	* T	e T		*	.08 .03	.70 .26 1.12	.08 .09	* T	.05	.10 * .08		1.03	•06	•01	* T	# T	2.40	*	6.32 1.86	•28 •28 •22	• 23	.81 1.55	:	.19 * .10	:		5+36 5+21	•01	.09	.02 . .07 . .25 . .01 .
PAIA 406 PANILEIHULU 259.2 A 1	9.18 19.85	.64 .02	1.04	.15	1.03	.33	.19	.04	.06 .11 9.20		.74 .01 *	.10	.14 T	* .66	2.30		*04	• 02	2.22	T *	*	.07 5.65		1.11	1.28	1.47	.17	2.12	.65		•21 •	1.55 .
POHAKEA BRIOGE 307.2   1 POLIPOLI 5PRINGS 267.2 A   1	11.29	T .26	•					•72	.28		9	* 15		.18	•09	.46		*	1.92	*		.25	.09 3.62	2.00	5.40	•46		.03	* 1	0.12	. 1	
PUU KUKUI MAKAI 472 A 1 PUUNENE 396 1	22.80 11.60 10.35 9.62	.01					:	.46 .29	* T • 0 I	:		.20	.01	*	.04			:	2.02	•	:	.20 .14	• •12 •14	* 1.22 I.14	* * 3.98	.87	* 6.06 .40	.02		:		2.80 · 1.60 · .03 · .01 ·
UKULELE 333 A 1 UKUMEHAME 301 A 1 ULUPALAKUA RANCH 250 1	9.65 14.00 12.35 11.35 8.64	:	•	:	:	:	.05	* 1.00 .10	.05 .09	•	.59	.04		.03	:	:	:	.89	2.41 .83 2.00	:	2.07	•25 •20 •20 •34	.17	1.54 .98 1.31	3.65	* •20 1•62 •21	:	.06	:	:	: 1	4.00 . .01 . .02 .
WAIHEE VALLEY 482 WAIKAMOI 449 A 2	23.50	1.14	.35	.07	*		T •2 I • 78	.66 .46 .19	.01			.22 .36		.03 .79 .80	.60 .58 *	.01	.03	* * * * * * * * * * * * * * * * * * * *	3.80 3.26 8		* * * 2.00	.20 .27 .19	.42 n	2.16 2.42 * .79 1.70	3.10	•96 •96 •		.33 .65 *	0.61		.10	3.50
WAILUKU 392	8.28	.02			.02	T	.62	.71	.02		.61	.20	.06	.01	.32	T e			4.70	.01		.23	•13	2.10 I.93		.49	.24	.02	T		1	:
ISLANO OF HAWALI										ı												1										
AWINI 182.1 A I EAST HUNDKANE 183B A I	2.40 13.09 11.20	.39	• 42	• 03 • • 02	* * * * * * * * * * * * * * * * * * * *	•	.46				.99	* * *17	• • • • • • • • • • • • • • • • • • • •		1.26 a	.26 .10	.01	*	• 27	*	1.07	.08	.33	**************************************	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	.55	5.66	.14	*14	• 02	2.40 · .58 · .1.20 · .10 ·
HAKALAU 142  HALEMAUMAU 52  HALEPIULA 117  HALEPOHAKU 111  A	8.30 5.93 2.60	.13	1.04	.07	.20	.45	.09	* *	* * * * * * * * * * * * * * * * * * * *	* * *	*	1.66	.25	.16	1.76	.10	.08	.99	1.10	.06	.01	.52	.63 * *	*24	* * 2.32	•22 * • •	.40	.57 e e e	.42 	.05 * * *		8.30 . 5.93 . 2.60 .
HAWAII VOLCNS NP HQ 54 HAWI 168  HILO WB AIRPORT R	4.48	.20	.26	.13	.11	.33	.02	.13	.01	.02	.19 .32 2.62	.09	.01	.17	.48	.28 .01	.03	.05		· T	.63	.05	.26	.24	•13	.09		2.10	.16	•01 •06 1	.02	1.37 .
HOLUALOA 70 A HOLUALOA BEACH 68 A HONAUNAU 27	8.00 2.59 8.22 17.23	.13	.85	.02	.02 .38	.03	.08	.02	• •65 •03	*	2.10	.10 1.93	.05	.02	.04 2,20	.04 .18	.02	.74	• 27 • 86	.03	•01	.08	•23 •72	•06 •46	•10 •01	•02 •54	.02		•59 2•10 •92	•42 •03	•02	.17 .
HONOMU MAUKA 138 HONUAULA 71 HUALALAI 72	10.08 19.24 3.08 3.40 4.05	1.00	.88	.27	.81	.45	.11			.02 .02	1.20	1.39	.23	.56	.43 .57 *	.08 .04 e	*22	.83	.04	:	* * *	.07 .35	.30	.85 .32	.07 .07	.28	*35 *	3.71	3.28	* 12 * 3	.02	.68 . 2.74 . 3.08 .
KAALA 1KI 12 A KAAWALOA 29 A KAIWALIU 73B KAMAOA NO 2 5 A	8.85 5.09 5.67 4.47	.80	.05	.60	.07	.70	.22	•12	.05	,05	.01		* T *	.68	1.10	.47 T	.07	.32	.20 * .66 .27	.06	.02 .32	.05	.82 .03 .19	.95 .38 .06	.89 T 2.68	.90 .16			•15 1•48 1•97	.33 .37 .45	T	.15 . .03 . .07 .
	4.12	.26	.09	•02		.01	.12				.27	.41	.05						. 20		-10			501		330						

See reference notes following Station Index.

– 29 –

Continued														MARCH		1967																	
Station		Total													Day	of M	onth																
Station		F.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA AIMPORT KAPAPALA RANCH 36 KAPOHO LANOING 935 KAUMANA 88+1 KAWANUI LOWER 193		2.98 10.33 14.43 15.44 36.26	.08	.03 .07	.20 .89 .24	* .31 8.78	T 1.33 .53	.10	.02 .45 *	T *	.01	.10 .24 1.85 1.62 1.62		.02	.01	.02 .45 .26	.01 .40 *	.03	7 •21 4•28 •49 2•38	•60 • •08	T 1.02	T • 25 •	•10 •15 •	.24 .80 .47	.35 .95 4.75 .18	.33 2.58	.30 1.65 .24	.30	.05 .23 .86	.01 .08 #	* • 22	.02	.04 . .25 . 2.66 . 1.15 .
KEAAU 92 KEALAKEKUA 26.2 KEHENA 181.2 KEHENA RESERVOIR 176.1 KIOLAKAA A 7 F 6	A A A	11.86 5.52 6.90 5.67 6.30	.10 *	.49 .08	.02	.25 .89 *	.35 .24 	.07	.08	T *	T *	2.11 T 1.12	2.76	T	.42	.22 .16 .43	.02	.38	.11	.07	:	e •65	.04 .05 .12	.50 .21 .22	•22 •06 •35	.37 T	.02	.04 T		1.03	•10 •36 •		1.34 . .04 . 6.90 . .25 .
K1PA 89.2 KOMALA 179A KOMALA MAULILI 176 KOMALA MI55ION 175.1 KOIAWE LOWER 196	A A A	18.08 7.35 8.36 7.08 18.31	1.03 .09 .22 .08	.12 .11	.10 .01 T	.31	•63 •	.03 .04 T	.14 .01 T		.19	1.74 .75 .58 .42 1.28	*	.45	.05 .11 .42	.14 .50 1.22 1.00	.07 .49 .19 .11		1.39	.97	.03 * T	1.06 .55	.02 .05 .08 .05	.38 .57 .38 .63	.27 .31 .38 .38	.15 e T 5.53	•40		4.42 2.70 3.29 1.45	1.37 .31 .33 .44	.36 .03 .04 .01	.01 T	1.26 . .21 . .34 . .16 . 4.58 .
KONA AIRPORT 68.3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 206 KULANI CAMP 79		1.57 13.71 8.75 10.13 7.85	.60 .65 .33	.51 .18 .29	.14	.10 .03		.02 .02 .01		•0B		.01 .18 .45	.31 .40 .19 .11	.02 .29 .16		2.92 2.25 4.40 .07	.31 .12 .09	.10 .01 .01	•60	.75 .90 .42 .53		•21	.03 .26 .21 .15	.11 .50 .29 .31	.06 .80 .47 .20	•60	•11 •54 •16 •15 •25	.62	4.10 2.10 1.97 .70	.01 .30 .42 .28 .20	.10 .01 .15	.10	.28 . .04 . .05 .
KULANI MAUKA 76 KULANI SCHOOL 51TE 78 LANIHAU 68 C MANUKA 2 MAUNA LOA 5LOPE 0BS	A A	4.64 5.77 7.30 4.13	-	-	- *40	-	-	47	-	-10	<b>-</b> Т	.85 .47	2.06	.45 .16	.06 - .98	.07	T .06	-	.06	.74	.40 .13	1.80 .21	.55 -05 .16	•52 •16 •	•02 •10 •89	.02	-48 - 1.97 T	.03	.03	- •66 •48 •22	- •45 •15 •01	- •26	.45 .
MIOOLE HOLUALOA 68.1 MIOOLE PEN 147.1 MOAULA 18 MOUNTAIN VIEW 91 NAALEHU 14	A A	1.81 6.10 17.86 5.08	65	. 56	.24 .18	.66	* * * * * * * * * * * * * * * * * * * *	* * .47 .21	* * •10 •09	*09 * T	.83 * .03	* * .96 .32	.32 .82 .67	:	.10	.06	.34	* * * .38	1.03 * 2.57	* * * * * * * * * * * * * * * * * * * *	*	.09	•13 •81 • •05 •23	.08 * 1.05 .82	.05 * .14	* * • 93 • 38	.068 .06	.09	.06 1.97	.34 1.54 .04	* • 42 • 39	* •03 T	6.10 . 1.62 . .08 .
NAPOOPOO 28 NAULU FOREST 38.6 NIULII 179 OOKALA 223 OPIMIMALE 2 24.1	A	2.19 9.51 7.60 12.02 6.47	.10 .13	.11 .20 .40	.02 .05 .03	.17 .03 .23	* *14 *	.65 .10 .10	.09 T	* •01 T	* T	1.45 .10 .10		* T * •07	.83 .30 .15 T	3.11	.30 .14 .36	.04 .15	.64 .04 .21	2.31 ** .20	.07	.25 1.23 .05 .20	.07 .08 .24	.90 .80	.56 .58 .60	.94 .04 1.32		* *42 T	.46 .03 2.26 2.54 1.00	•11 •27 •78	• 12 • 02 • 01 • 02	.68	.09 . .17 . .74 .
ORCHIO LANO EST 91.5 PAAUHAU 217 PAAUILO 221 PAHALA 21 PAHOA 65		15.38 9.57 11.88 7.88 15.89	.36 1.04	.08 .35	.17	.04 .01	.09 .26	.02 .02 .41		*	* T .01	2.58 .05 .01 1.37	.31	•	.16	3.64 2.28 .25 .14	.07 .32 .72	.01 .05 .30	Ť	.27 .83 .92	.02	.06 .35 .03	.29 .26 .13		2.00 .26 .55 1.01 1.22	1.05	1.13	.53	2.02 3.42 1.28	* •13 •35 •72	.18	•05	6.03 · .09 · .15 · .05 · .1.80 ·
PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140A PEPEEKEO MAKAI 144 PIIHONUA 89		16.20 9.33 16.52 11.53 24.40	.19 .86	.70 .88 .78	.10 .22 .23	.54	.21 .86 .41	.17 .36 .09			.I1	.87 1.75 1.21	1.29 1.19 1.23	.01 .11	.05		* T .07	.30 .13 .15	.27 .50 .70	.03 .01 .03	.02		.02	.66 .38 .66	.07 .21 .08	• 11 •03 •06	.48	.19 .35 .25	3.92	1.22	.02 .13 .04	.01	16.20 . 1.48 . 1.92 . 2.80 .
POMAKULOA 107 PUAKO 95A PUU KAPU 192.1 PUU KIME 120 PUU LAAU 102.1	A A A	2.77 2.33 3.55 7.61 2.54	:		:		*	:	:	:		* 17	.44 .19 *		:	:	:		*	.22 .57	:	*	.58	.09	.06	.01	1.45	.02	:	.08	:	*41	.02 · 3.55 · 7.61 · 2.54 ·
PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82 PUU WAAWAA 94•1	A	2.80 4.70 6.78 8.21 7.29	.53 .13	* •11	.10	* * *	* * *	.04 .10	.02	.01 .05	.06	. 84 . 04 T	* * 1.42 .32	.23	* * .22 .05	* • 39 • 06 • 30	.05 .03	.02 T	• 02	• • •13 •60	*	* 1.10 .09 1.20	* •13 •38 •60	• •24 •73 •29	.22 .85 .24			.75 1.00		.09 .30	.14	• 10 • 64	
SAOOLE ROAD 1 84 SOUTH POINT CORRAL 3 UMIKOA 118 UPOLU POINT USCG 159.2 WAIAKEA SCO 88.2	A	21.92 4.98 7.09 3.68 15.42	.50 .05	* T .83	5.80 *	.03		.13	.06 T	•	* T	1.00	.69	. O 16	•12		.25 .01		3.76 .02 .92	• 76 • 54 • 30	* •50	•	• 37 •11 •02	-10	1.65		* •32 •54 •27	* 1.73 .28 .40 .12	.65		T	• 02	8.85 . .03 . .04 . 1.20 .

## SUPPLEMENTAL DATA

		(	Win Speed -		)		Relati	ve hum	idity ave	rages -		Numl		1					
Station	Direction Direction Direction Speed Average Average Direction Direction of datest mile					150 2 AM	TH MERI	DIAN TI	ME 8 PM	Trace	Trace .0109		-5099	1.00-1.99	2.00 and over	Total Percent of possible		Average sky cover sunrise to su	
HILO, HAWAII, WE AIRPORT	15	1.8	7.3	21	E	12	83	78	73	81	1	12	10	2	2	1	28	34	8.4
HONOLULU, OAHU, WB AIRPORT	7	5.6	8.9	27	NE	31	82	80	66	77	5	11	1	0	3	1	21	40	7.8
KAHULUI: MAUI: W8 AIRPORT	7	5 • 2	9.7	28	NE	01	81	82	63	77	7	5	5	0	1	2	20	44	7.8
LIHUE: KAUAI: W8 AIRPORT	7	4.9	9.9	24	E	26	86	84	75	82	6	6	5	4	3	U	24	33	8.5

	-	T			-					YYY		-					Of M		-												ARCH		1967
Station		I	2	3	4	5	6	7	8	9	10	11	12	13			16		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
	1	-													-							-		-		-			20	2.5	00	-	<
ISLANO OF KAUAI	1																																
KANALOHULUHULU 1075	MAX	63	64 51	67 50	65 52	67 45	69 55	60	60	68	66 54	69 46	68 55	63	70 39	65	61	66 42	67	70 52	64 55	60 54	64 56	60 54	62 52	60 54	65			69			65.3
KILAUEA POINT 1133	MAX	73 67	78 66	77	78 66	78 65	69	73	81	77	82	82 73	82	83	80	78 65	78 68	83	84	75	76 66	73	74 66	73 66	75 65	72	56 74 69	59 73 67	55 80 67	78 70	47 79 70	79	50.5 77.3 66.6
LIHUE WB AIRPORT	MAX	75 68	78 70	75 67	78	79 67	73 62	74 61	78 65	79 73	78 67	81	79 71	76 62	76 58	75 61	77	81	79 64	77	75 66	72	75	76 67	76 66	72	75 69	74	78 68	79 64	80		76.7
MAKAHUENA POINT	MAX	78 62	77 64	80 63	78 68	80 65	82 71	78 64	76 64	82 70	81	83	85	83	80	79 65	81 65	80 68	84	83	78 68	78 70	78	76 65	76 68	79 65	74 66	77	75 68	82	82		79.5
MANA 1026	MAX MIN	82 59	8 l 6 l	80 63	81	83 60	85 66	75 59	82 62	83	79 67	81	84	80 67	80 60	81	79 62	82	82 65	80	78 65	77	76 65	73	79 63	79	78 65	79	77	80	82	81	80.0
NIU RIOGE 1035	MAX	79 57	78 57	79 38	79 58	80 60	80 59	72 59	76 59	77 60	78 60	78 59	79 60	80 60	80 60	80 56	77 55	79 61	79 62	80	74 63	74 60	75 60	75 60	74 61	74 62	75 60	75 61	75 64	80	78 63		77.4
WAIAHI LOWER 1054	MAX	70	74 61	73 61	73 58	77 57	75 63	76 58	75 63	75 63	79 64	80 58	80 62	76 62	76 52	74		78	80 57	77	73	73	73	76	75 67	68	69	70 65	78 57	78 57	78		75.3
	Ĭ																															- 0	.,,,
ISLANO OF OAHU																																	
EWA PLANTATION 741	MAX MIN	80	81 63	80 63	82 62	82 62	72 62	75 65	83 64	82	80 67	81 65	81 65	75 70	80 64	79 59	81 59	84 63	83 65	82 65	77 66	76 66	73	79 64	76 66	75 67	8 2 6 9	77 70	80 66	85 64	85 67	84 68	79.7 65.0
HONOLULU WBAP 703	MAX	80 67	81	81 65	8 3 6 5	8 2 6 7	75 67	78 67	83	83	80	80 67	81	79 70	80 65	79 61	81	82 71	82	82	79 67	78 67	75 67	79 65	78 68	76 69	81	78 69	79 68	83	83	83	80.1
HONOLULU SUBSTA 704	MAX	74 67	77	76 68	79 68	80 69	75 68	76 68	80 68	80	79	78 65	78 70	77	78 67	78 64	79 65	78 72	83	79 70	77	76 65	73	77 65	75 67	74 68	78 69	76 69	78 68	81	81 71	81	77.8
KAHUKU 912	MAX	76 64	75 65	76 68			78 61	70 63	73 63	79 67	78 66			86	73 66	75 57	77 57	78 61			81	78 63	78 66	74 65				77 65	74 66	78 69	79 70		77.0
KANEOHE MAUKA 781	MAX	74 65	72 68	75 67	77 67	78 67	76 64	72 65	73 66	80 68	76 67	77 68	79 72	81	72 65	77	78 62	78 62	79 61	82 67	79 69	78 67	78 67	71 64	77 65	79 65	72 68	75 69	72 66	75 65	79 68	79 69	76.5
MAKAPUU POINT 724	MAX	71	74 67	73 65	72	76 68	76 66	71 65	72 65	76 67	74 67	74 68	78 67	79	71 67	73 63	74 69	77	79 67	79 71	76 66	75 68	75 65	69	79 65	69 65	73	75 69	72 67	78 71	78 70	77	74.7
OPAEULA 870	MAX	69	70 62	75 61	81	75 60	78 61	68	69	76 64	76 64	80 66	78 64	78 66	73 61	76 55	78 55	76 57	78 62	80 62	79 64	73 63	73	68	73 63	73 69	75 61	73	72	76 61	78 62		75.1 62.2
PRI WAHIAWA 820.2	MAX	75 61	75 60	78 58	78 60	81	80	70 63	72 62	81	79 64	77	77	79	74	77 56	75 55	80 56	76 61	82 61	78 61	75 62	75 65	70 64	77 63	72 64	73 67	79 69	76 65	79 61	82		76.9 62.0
WAIALUA 847	MAX	75 61	75 58	79 59	80	84 62	82	70 65	71 62	81	80	80 67	82	83	73 63	76 56	77 55	80 58	83	82 64	83 62	78 65	78 65	72 65	81 65	74	73 68	77 66	78 66	81 62	84	82 66	78.5 63.2
WAIKIKI 717.2	MAX	79 69	78 68	82	83	84	84	76 66	81	86 69	84	81	83	84	83 62		84	83 67	82	85 67		80 61	79 68	74 63	81 67	78 67	78 68	82 69	78 67	80 63	84 68	85 70	81.5
ISLANO OF MOLOKAI																																	
MOLOKAI AP 524	MAX	72		76 65	77	76 67		78 64	74 66	80 66			80 70		74 66		76 60				80 66	74 66	73 66	71 66	78 67		74 68	76 69		78 66	82 68		76.8 66.2
* * *																																	
ISLANO OF LANA!																																	
LANAI CITY 672	MAX	73	72	76 58	73	72 60	74 59	74	75 60	73 61	75 63	76 61	75 59	76 62	71 61	74 60	75 58	77	77 61	74 64	75 65	72 62	71 64	70 63	73 65	71 65	69 64	71 63	74 65	75 64	77 63	76 62	73.7 61.7
ISLANO OF MAUI																																	
HALEAKALA RS 338	MAX	58	62	62	59 40	60 37	58 38	57 45	58 43	66	66 47	56 42	58 42	61	59 46	60 44	57 44	58 44	60 43	60 42	58 43	56 46	50 46	53 47	55 46	50 45	58 46	60 47	65 44	65 48	66	61 47	59.1 44.0
HALEAKALA SUMMIT 338.4	MAX MIN	50 38	50	52 36	52 36	51 38	54 37	52	47	52 41	54 38	42 36	46 38	48	52 34	52 31	42	45	43 37	48					42 38	43	48 42	53 44	58 41	55 42			49.0 37.5
HANA AIRPORT	MAX	73	75 68	76 65	76 67	79 64	77	79 66	80 66	80 67	80 67	78 65	80 65		82 63	75 59		79 65	78 63	80 67		80 64	75 67		76 66	72 67	75 71		77 69	79 71			78.0 66.3
KAHULUI WB AP	MAX	77	80		83	82	83 59	80 67	83 63	83	75 68	80 65	83	82 68	76 66		81	80 63		80 63			76 68		75 68	76 69	78 70		80 65				79.5 64.9
KAILUA 446	MAX	77	70	73	74	75 63	74 58	77	77 58	77 67	77	77	79 66	79 59	80 61	72 60	75 60	71 60	77 63	76 59		78 60	78 60		78 63	78 61	78 61			74 64			76.4 61.8
KULA SANATORIUM 267	MAX	68	68	67	67	68	68	73	69	70 54	60	68	69 56	71 57	71 53	69 53		70 54	72 57	72 57			67 56		69 58	67 57	71 58		68 57	70 57			69.2 55.0
LAHAINA 361	MAX		82		82	83	83	84	82 65	85 63	85 66	76 66	83		84	80 59		83 62	81 64	84 63	84 63	78 64			81 63	77 65	78 69	85 68	82 65	82 63	85 64		81.7 63.2
WAILUKU 392	MAX	75	76	79		78	82	85	82		82 65	75 63	83	84 63	84 63	84 59	83 63	83 63	81 63	83 67	81 65	79 63	75 63	76 64	80 64	75 64	75 64	76 67	74 66	80 66	83 66	83 68	80.0 63.8
				-																													

Continued									D	AI	LY	T	EM	IPE	ER/	T	UR	ES	5												MARCI	4	196
																Day	Of M	onth															age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
ISLANO OF HAWAII																																	
HAINA 214	MAX	65 60	73 59	73 57	75 59	73 62	77 57	79 60	81 59	78 60	77 62	67 61	77 58	80 60	83 63	68	73 59	75 58	80 58	78 61	77 61	79 61	69 61	72 59	77 60	73 61	75 64	73 65	68	75 63	78 60	78 63	75.
HAWAII VOLCN5 NP HQ 54	MAX	59 48	63 49	60 46		68 51	64 53	64	68 50	70 49	64 53	60 54	67 50	72 53	72 56	61 53	63 51	70 55	64 51	68 52	69 50	70 54	63 53	59 53	65 56	68	68 53	70 58	62 53	65 54	70 53	68 55	
HILO W8 AIRPORT	MAX MIN	75 67	77 67	81	78 68	79 68	79 67	84 62	85 64	83 65	73 68	85 67	86 66	83	76 70	79 67	81 67	88 67	82 69	82 67	84 68	77 69	77 68	83 66	81 70	80 70	8 1 7 1	74 69	81	84 69	82 67	82 68	80.
CAINALIU 738	MAX MIN	77 59	75 59	77 56	77 57	77 58	77 57	78 60	79 62	75 60	77 62	73 59	78 60	78 60	79 60	81 59	77 59	78 61	81 62	79 59	77 59	78 61	73 60	77 60	80 65	79 62	77 64	80 63	77 63	71 62	72 63	78 62	77.
CAMUELA 192.2	MAX MIN	61 53	65 54	67 47	75 50	70 55	71 47	74 49	77 50	76 53	70 59	70 58	78 49	77 49	7.8 52	72 57	74 54	76 49	78 53	74 58	72 56	78 55	68 58	67 53	75 56	77 56	72 60	70 60	68 56	69 54	75 57	74 58	72. 54.
AMUELA AIRPORT	MAX	68 50	69 53	67 49	72 54	71 58	71 57	71 56	73 50	75 49	70 55	69 57	72 52	75 50	75 57	74 56	74 54	76 54	74 55	74 54	72 56	73 55	68 54	67 57	74 56	72 57	72 58	73 63	67 55	68 56	73 56	72 62	71. 55.
EAAU 92	MAX	72 63	73 63	76 61	79 60	79 60	79 60	77 62	82 63	82 61	80 63	83 63	83	83	8 2 6 3	72 62	78 63	77 65	84	84	84 64	83	77 64	75 64	84 65	84 65	84 65	84 65	72 65	78 65	82 64	8 l 64	79. 63.
EALAKEKUA 26.2	MAX	77 60	75 6 I	79 59	79	77 60	78 59	78 62	79 61	77 61	78 64	75 62	78 61	79 62	79 62	79 61	78 61	79 63	81 63	79 63	79 65	80 63	70 62	72 66	81	81	78 65	81 63	77 65	71 64	78 64	78 64	77.
OHALA MI5510N 175.1	MAX MIN	70 63	74 63	75 60	75 62	76 61	77 62	76 62	80 65	79 66	77 65	69 64	79 63	82 63	82 65	74 64	76 61	78 62	82 64	79 65	7 8 65	7 g 6 5	70 64	75 64	82 65	76 65	77 67	74 67	71 65	74 66	79 66	79 67	76.
CONA AIRPORT 68.3	MAX	80 63	80 64	80 63	80	79 64	81	81 63	80 63	80 64	80 65	79 65	80 64	82 66	82 64	82 64	81	81 65	82 64	82 65	80 65	81 63	77 63	75 65	80 65	80 64	79 65	81	82	81	80 65	80 65	80. 64.
CULANI CAMP 79	MAX	61 43	63	63 41	59 49	59 46	68 48	67 46	64 47	68	68 51	67 48	69	68	65 48	67	57 45	63	63		63 45	65 52	63	65 51	65 50	61	65	65 55	65 51	61	64	64	64.
MAUNA LOA SLOPE 085	MAX MIN	49 34	48 31	48 29	49	52 33	54 37	49	54 31	53 33	43	43 32	49	51 36	49 36	44	50 31	49 34	45 33	47 32	45 36	40 34	42	48 32	52 32	50 37	53 40	52 40	49	51 38	50 36	48	48.1
MOUNTAIN VIEW 91	MAX MIN	67 56	70 59	69 56	74 54	72 59	72 60	69 55	77 55	79 56	75 56	72 60	79 58	79 59	79 59	69 59	71 57	73 57	80 63	79 58	79 59	78 58	70 61	71 61	80 62	76 62	74 64	74 64	68	70 61	75 59	76 62	74.
HAALEHU I4	MAX	77 62	75 65	76 64	76 64	77 64	77 64	76 64	78 64	79 65	77 65	77 65	80	80 64	80 65	76 65	74 65	78 67	78 67	81 65	82 65	79 66	71 65	74 64	74 64	75 65	80 65	80 65	73 67	76 66	7 g 66	80 67	77.
OOKALA 223	MAX	70 64	75 63	73 62	77 64	76 66	79 64	77 63	80 63	80 66	78 66	80 66	80 65	80 65	80 65	70 65	75 63	79	8 2 6 5	80	79 66	78 65	71 65	73 65	81	77	76 66	75 66	70 65	78 67	78 67	79	77.0
PIHIHALE 2 24.1	MAX	75 57	76 54	76 54	77	79 56	81 56	77 58	76 58	74	74 60	76 58	81	78 59	79 59	76 56	79 57	81	80 59	77 61	78 60	77	69	83	86 61	74 62	78 64	75 65	72 64	79 63	76 62	75 63	77.
AHALA 21	MAX	78 57	75 56	74 57	77 57	76 62	75 63	73 59	76 59	78 58	78 59	69	79 61	80 62	80 62	76 62	71 61	77 61	80 65	80	79 61	7 8 62	72 62	71 62	78 64	78 66	81	80	74 65	74 64	78 60	78 61	76.5 61.5
POLU POINT USCG 159.2	MAX MIN	78 65	77 67	78 64	78 66	79 66	80 67	81	80 62	80 65	79 68	73	80	81 65	82	80 66	78 68	81	80	85 65	79 67		74	78 68	83	78 66	76 66	78 69	75 67	77	79 67	80	78.9

## EVAPORATION AND WIND

Station																Day	Oi M	onth															78.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
ISLANO OF KAUAI																																	
LIHUE w8 AIRPORT	EVAP WIND MAX MIN		.23 124 77 63	83	79	81	87	62 81	63 80	• 29 62 84 68	60 82	83	74 89	.00 85 82 66	93 85		•15 50 79 6I	59 88	83	50 88	55 75	36 75	114	151 75	109	226 82	199	169	107	37		130	5.60 2799 81.7 64.9
SLAND OF OAHU								,																									
HONOLULU 085ERV 702.2	EVAP WIND MAX MIN	•28 87 82 62	64	85	26 79	89	39 87	54 73	.06 20 76 64	24 89	30	13 81	25	.23 31 76 69	29	91	.15 11 88 62	46 87	93	93	I 6 84	20 78	23 84	11 75	24	79	35 76	87	31 78	23 82		27 81	4.9 962 83.1 65.2
SLANO OF HAWAII																																	
HILO #8 AIRPORT	EVAP WIND MAX MIN		78	58	81	63 78	70 77	95 84	81 85	79 84	39 72	91 84	124 86	62 90	123 78	.12 55 84 65	.11 58 82 65	96 83	50 90	63 90	83	57 75	70 76	84	84	57 84	67	51 75	.12 64 81 66	°21 74 84 66	55 83	58 84	4.33 2162 81.9 65.2

			-		ш	7			ATION			ТТ	T	I↔			OBSERV A	TION	MARCH 196
STATION	INDEX NO.	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	HECTE SHEET		OBSERVER	STATION	INDEX NO.	DISTRICT	DRAINAGE 1	LONGITUDE	ELEVATION	TABLI	ND S	OBSERVER
RYOESWOOD STA 985 A AST LAWA! 934 A KW 3 RESERVOIR 1094+1 LEELE 927 A ALAULA 1110 A	0145 0246 0456 0465 0470 0935 1036	OZ KOLOA 5 OI KAWAIHAU 02 KOLOA 02 KOLOA 02 KAWAIHAU 02 KOLOA 01 KAWAIHAU 02 LIMUE 01 KAWAIHAU 03 WAIMEA	2 2 2 1 2 2 1	2 21 57 2 22 09 2 21 56 2 21 56 2 21 54 2 22 07 2 21 58 2 22 07 2 21 58 2 22 05 2 21 59	159 32 159 30 159 22 159 35	720 441 350 163 253	5	7A 7A 7A 6A 7A 8A	C	MC BRYDE SUGAR CO. LINUE PLANTATION CO MC BRYDE SUG CO LITO LINUE PLANTATION LTO LINUE PLANTATION MC BRYDE SUG CO LITO LINUE PLIN CU LTO GROVE FARM CO LTO S LINUE PLIN CO LTO KENAMA SUGAR CO LTO	LANAI CITY 672 LANAIHALE 684 A MAHANA 694 A	5286 0 5301 0 5704 0 6012 0	DI LAHAINA DI LAHAINA II LAHAINA II LAHAINA DI LAHAINA DI LAHAINA DI LAHAINA	1 20 47 1 1 20 50 1 1 20 49 1 1 20 53 1 1 20 46 1	57 00 57 00 56 55 56 53 56 55 56 55 56 55	1640 30 1620 3370 1430 1135 2040	#1 8A 7A 7 WI WI WI WI	K C C C	DOLE COMPANY OULE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY
LILIULA INTAKE 1050 NTAKE WALNIHA PC 1086A ALIHIWAI RES 1131 ANALOHULUHULU 1075 ANEHA RESERVOIR 1092 A APAA STABUES 1104 A EALIA 1112 A	222 2974 3095 3104 3159 3982 4272 4561	O1 HANALE1 O3 WAIMEA O1 KAWAIHOU O1 KAWAIHAU O1 KAWAIHAU O3 HAIMEA O1 HANALE1	1 1 3 1 1 1 1 3	22 02	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43	400	8.4	7 A W I 7 A 8 A 7 A 7 A 8 A 6 A 7 A	C C C	LIMUE PLTN CD LTD  MC BRYDE SUG CO LTD  KILAUEA SUG PLIN CO ANALOMULUMULU R. S. LIMUE PLANTATION LIMUE PLTN CO LTD LIMUE PLTN CO LTD KEKAHA SUGAN CO LTO KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO	HAELAAU 477 HALEAKALA B E S 434 A	0790 0 0995 0 0999 0 1004 0 1008 0 1016 0	2 HANA 14 LAHAINA 14 LAHAINA 11 MAKAWAO 12 MAKAWAO 12 MAKAWAO 12 MAKAWAO 12 MAKAWAO 13 MAKAWAO 14 MAKAWAO 16 MAKAWAO 17 MAKAWAO 18 MAKAWAO	1 20 51 1	56 36 56 18 56 19 56 15 56 16 56 17 56 21	2060 1050 2980 2100 4850 7030 9960 690 1070 320	7A 6A 8A 8A 8A 8A 5A	c c	ULUPALAFUA RANCH MAUI PINEAPPLE CO., MAUI PINEAPPLE COMPAN U OF HAWAII EXP STA HALEAKALA RANCH CO HALEAKALA RANCH CO HALEAKALA NAT PARK U OF HICH MI MKALA OB PHIL SCOTT HAUI PINEAPPLE CO., HAWAIIAN COM + SUG CO
DLOA MAUKA 994 ADLOKO RES 1137 AKUJULA 935 AJHUE VARIETY STA LHUE 1020 A	4758 4950 5560 5575	03 WAIMEA 03 WAIMEA 02 KOLOA 02 KOLOA	3 2 2 1 2 2 2	22 14 22 02 22 04 21 55 21 58 22 11 21 54 22 01 21 59 21 59	159 46 159 28 159 29 159 23 159 30 159 23 159 22	180 2150 36 240 640 737 104 375 207		8A 7A 8A 7A 7A 6A 7A 7A	E BAE J	U S COAST GUARO DERAHA SUGAR CO. TERAHA SUGAR CO. LTO GROVE FARM CO. LTO KILAUEA SUG PLIN CU MC BRYDE SUG CO. LTO MAMAIIAN SUGAR PL ASSN LIHUE PLIN CO. LTO U S. WEATHER BUREAU	HONOKOHAU 480 A HONOKOHUA 493 A HONOLUA FLO 49 494 A HONOMANU GULCH 341 A IAO NEEOLE 387.2 KAHOMA INTAKE 374 A	1148 0 1552 0 1882 0 1887 0 1914 0 1935 0 2208 0	DI HANA DI HANA DI MANA DI MANA DI MANANA DI MANANA DI MANANA DI WANANA DI WANANANA DI WANANA DI WANANANA DI WANANA DI WANANANA DI WANANANA DI WANANANA DI WANANANANANANA DI WANANANANANANANANANANANANANANANANANANAN	2 20 45 1 4 20 58 1 4 21 00 1 4 21 01 1 1 20 47 1 3 20 53 1 4 20 54 1	56 01 56 01 56 13 56 36 56 39 56 38 56 14 56 33 56 38	120 61 325 6930 870 135 125 6280 1100 2000	8A 11A 11A 7A HO MO 6A M_ W:	k s	HARRY HASEGANA HAWAIJAN AIRLINES KOALI PANCH HALEAKALA NATL PARK RI HAUJ PINEAPPLE CO HAUI PINEAPPLE CO HAUI PINEAPPLE CO HAUEN ALA RANCH CO STATE OUTSIJON OF PARI PIONEEP MILL CO LTD
NA 1926 + M 1001 DHIH1 UPR CROSS 1083 DLOAA 1145 A	5864 6082 6097 6433 6529 6565 6850	01 MAIMEA 01 KAHAIHAU	3 2 3 1 2 3	21 52 21 55 22 02 21 55 22 07 22 11 22 04 22 02 22 04 22 04 22 04	159 27 159 38 159 46 159 28 159 36 159 20 159 30 159 44 159 28 159 26	52 140 11 300 3500 330 5075 1250 1110 650	9A 6A	8 A 7 A 9 A MIO 7 A 6 A 7 A	K	U S COAST GUARD OLDRELE SUGAR CO KERAMA SUGAR CO LTD GROVE FARM COMPANY S U S GEO SURVEY LINUE PLANTATION CO. U.S. GEO. SURVEY KERAMA SUGAR CO LTD LINUE PLIN CO LTD S LINUE PLIN CO LTD	KALUILI 436 KALUA 446 KAUAULA INTAKE 375 KAUPA PANCH HOUSE 259 AEAHUA 410 AEANAE 346 KEAAAKAPU BEACH 260.2 KIHEL 31 KIPAHULU 250	2630 0 2679 0 3433 0 3576 0 3910 0 4091 0 4193 0 4489 0	33 WAILUKU 11 MAXAWAD 11 MAXAWAD 14 LAHAINA 12 HANA 13 MAKAWAO 11 HANA 12 MAKAWAO 13 WAILUKU 11 HANA	3 20 52 1 1 20 50 1 2 20 42 1 3 20 47 1 1 20 39 1	56 16 56 13 56 38 56 08 56 23 56 10 56 27 56 27 56 74	48 2520 700 1585 1020 480 980 20 90 260	MID 'IL MO 7A WI SA MO 6P 7A 7A	C J	U S WEATHEP BUREAU E MAUI IRR CO LTD E MAUI IRR CO LTD PIONEER MILL CO LTD KAUPO RANICH HAWAIIAN COM + SUG CO E MAUI IRR CU LTD A. L. CORELL HAWAIIAN COM + SUG CO KIPAHULU CATTLL COMPA
H dAINIHA 1115 NINCEVILLE RANCH 1117 NEHU R106E 1040 HHI 1013 A SERVOIR 6 1004 A NABLE CAMP 1055-1 HIMMA 930 A	8155 8165 8205 8217 8573 8694 8941 8949	01 HANALE1 01 HANALE1 03 MAIMEA 02 LIHUE 02 LIHUE 02 KOLOA 02 KOLOA 02 LIHUE 02 LIHUE 02 LIHUE 02 LIHUE	1 1 3 2 2 2 2 2 2 2 2	22 12 22 13 22 01 21 58 21 57 22 04 21 54 21 58	159 34	101 295 1660 329 420 740 215 2100 565	6A	6A 7A 7A 8A 8A 7A MO 6A 8A	איא יייי	MC BRYDE SUG CC LTO PRINCEVILLE PANCH KEKAHA SUGAR CO LTO GROVE FARM CO LTD GROVE FARM CO LTD LIHUE PLANTATION CG. KC BRYDE SUG CC LTD MC BRYDE SUG CC LTD LIHUE PLIN CO LTD LIHUE PLIN CO LTD	KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKU INTAKE 376 A LAUNIUPOKO VILLAGE 372A LUPI UPPER 462	5003 0 5006 0 5177 0 5404 0 5408 0 5665 0 5715 0	04 LAHAINA 02 MARAWAO 02 MARAWAO 04 LAHAINA 04 LAHAINA 01 MARAWAO 04 LAHAINA 03 WAILUKU 04 LAHAINA	1 20 53 1 4 20 57 1 4 20 57 1	56 19 56 22 56 41 56 37 56 39	5788 2520 3004 45 1280 220 1240 715 1040 129	7A 7A 7A 7A VAF 7A MO 7A	c	MAUI PINEAPPLE CO KENNETH WILLEY YOUA SANATORIUS PIONEEP MILL CO LTD PIONEEP MILL CO LTD B S OF A COUNCIL MAUI PINEAPPLE CO
NAWA 943 NILUA KAI 1065 A NIMEA 947 ST LAWAI 931 A SLANO OF OAHU EA FIELO 625 761 A RETANIA PUMPING STA	9253 9467 9629 9955	03 WAIMEA 02 LIHUE 03 WAIMEA 02 KOLOA 03 EWA 03 EWA	3 2 3 2	21 59 22 02 21 57 21 54 21 25 21 19 21 25	159 43 159 21 159 41 159 31	10 50 20 210 455 20 680		8A 7A 8A 6A		KEKAHA SUGAR CD LTD LIHUE PLANTATION WAIMEA SUG HILL CO MC BRYOE SUG CO LTD  WAIAHOLE WTR CO LTO SOARO OF WTR SUPPLY CALIFORNIA PAG CORP	OLINDA 332 A OLDWALU 296 OLOWALU GULCH 377 A PAAKEA 350 PAIA 406 PANILEIHULU 259.2 A	7040 0 7059 0 7066 0 7194 0 7566 0 7674 0	1 WAILUKU 2 HANA	1 2C 48 1 4 20 49 1 4 20 51 1 1 20 49 1 1 20 55 1 2 20 41 1 1 20 55 1	56 36 56 17 56 38 56 36 56 07 56 23 56 08 56 19 56 31 56 20	340 4127 7 800 1260 170 3570 485 167 6150	WI VAR 7P MO 6A 6A HI 7A 6A VAR	c	MAUI PINEAPPLE CO-PAN MAUI CO MATEF DEPT PIONEES ALLE C. PIONEES PILL CO LTD E MAUI IRP CO LTD HAWAIIAN COM + SUG CO KAUPO PARCH C. HASERUI PINEAPPLE CO- AMILUKU SUGAR O STATE OLV OF FURESTPY
CONUT ISLAND 840.1 WSETT HIGHLANDS 780. KA PLANTATION 74.1 LAWA SHAFT 771.2 LEMAND INTAKE 881 A KULOA 725.2 NOLULU OBSERV 702.2	0350 0438 0507 0964 1384 1540 1918	01 KOOLAUPOKO 02 HONOLULU 03 EWA 02 HONOLULU 05 WAIALUA 03 EWA 03 EWA 02 HONOLULU 02 HONOLULU 02 HONOLULU 02 HONOLULU	2 3 2 5 3 3	21 26 21 21 21 21 21 23 21 33	157 47 157 50 158 02 157 54 158 00 158 06 158 00	13 565 42 170 1274 2220	8A M10	9A 7A WI VAR 9A WID 8A	84 K K K K K K K K K K K K K K K K K K K	U OF H MARINE LAS  J. L. BANNING CEA PLANTATION CO BUARO UF WATER SUPPLY WAIALUA AGE CO LTO M. V. VON HOLT U S COAST & GEODETIC  U S WEATHER BUPEAU U S GEOLOGICAL SURVEY H S P A EXP STATION	PUU KUKUI MAFAI 472 A PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 432.2 TWIN GATES 261.3 A UKUMEHAME 3G1 A	8543 0 8553 0 8688 D 8742 0 8744 0	1 HANA 4 LAHAINA 3 WAILUKU 1 HANA 3 WAILUKU 3 MAKAWAO 1 MAKAWAO 14 LAHAINA 2 MANAWAO 4 LAHAINA	3 20 53 1 1 20 46 1 3 20 54 1 3 20 46 1 1 20 48 1	56 38 56 27 56 33 56 25 56 23 56 15 56 35	2980 2500 60 2160 85 1310 5230 75 1900 580	MO 140 7 A 8 A VAR 140 7 A 8 A 8 A	5	E MAUI IRR CO LTO PIONEER MILL CO LTO HAWAILAN COM + SUG CI EAST MAUI IRRIGATION HAWAILAN COM + SUG CI KAONDULU PAMCH HALEANALA PANCH LU PIONEER MILL CO LTO ULUPALAKUA ROC CO LTI PIONEER MILL CO LTO PIONEER MILL CO LTO
MANA 883 A HUKU 912 ILUA FIRE STA 791.3 LIHI RES SITE 777 MEHAME 724.7	2269 2462 2570 2683 2960 3056 3113	02 HONOLULU 01 XOOLAULOA 01 KOOLAULOA 01 KOOLAULOA 02 HONOLULU 01 KOOLAUPOKO 02 HONOLULU 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAULOA	1 1 2 1 1 1 1	21 18 21 31 21 41 21 24 21 23 21 19	157 43 157 54 157 57 157 45 157 50 157 41 157 49	50 800 25 10 910 1380 225 365	8A 7A	8A W1 8A 41D 7A 8A	c	M S P A EXP STATION TWEST MILLE ZAPATA WAIAHOLE WIR CO LID KAHUKU PLIN CO NAILUA FIRE STATION BOARD OF WIR SUPPLY HAWAII NATIONAL GUARD STATE MOSPITAL XANEOHE RANCH CO GEORGE M. SWIFT	WAIEHU CAMP 484 WAIMEE VALLEY 482 WAIKAMOI 0449 WAIKAMOI 044 336 WAIKAPU 390 WAILLIA IKI 348	9275 0 931 0 9332 0 9335 0 9376 0 9460 0	3 WAILUKU 14 WAILUKU 11 HANA 11 MAKAWAO	3 20 55 1 4 20 57 1 1 20 52 1 1 20 49 1	56 31 56 32 56 12 56 14 56 31 56 D9	320 300 1200 4320 470 2630 200 220	6A 6A WM VAK 6A 8A 8A	5	WAILURU SUGAP CO WAILURU SUGAR CO E MAUI IRP CO LTD MAUI COUNTY TR DEPT WAILURU SUGAP CO EAST MAUI IRRIGATION ST. ANTHONYS BOYS SCH HALEAKALA RAYICH CO
PALAMA 773 A WA1HAPA1 B61 A WA1 IK1 INTAKE 880.2A WELA MAUKA 900.3 WELA MAUKA 900.3 WELA MAUKA 900.3 ALUALE1 B04 ALUALE1 WTR TUNNEL A	3268 3734 3741 3825 4318 4766 5213 5647	02 MONOLULU 05 WAIALUA 05 WAIALUA 02 KOOLAUPOKO 05 WAIALUA 01 KOOLAUPOKO 04 WAIANAE	255155144	21 21 21 35 21 34 21 40 21 33 21 30 21 39 21 26	157 52 158 11 157 59 158 00 158 05 157 58	614 20 1180 1050 725 1160 6 113		7A W1 7A 6A 7A 7A W1 7A	1.	RAMENAMENA SCHOOLS MAJALUA AGR CO LTO WAJALUA AGR CO LTO WAJALUA AGR CO LTO HAWATI NATIONAL GUAPU WAJALUA AGR CO LTO ( + F DEFICER HEOG KAHUKU PLIN CO USN AMMUNITIUN DEP U S NAVY LUNALILO HOME	AHUA UM1 75 A A'INI 18241 EAST HONOKANE 1838 A HAINA 214 HAFALAU 142 HALEMAUMAU 52 HALEPOHAKU 111 A HAWAII VOLCMS NP HO 54	0190 0 0450 0 0840 0 0905 0 1033 0 1060 0 1065 0	5 N KONA 1 N KOMALA 1 S KOMALA 1 HAMAKUA 2 S HILO 3 KAU 1 HAMAKUA 2 HAMAKUA 2 KAU 1 N FOMALA	1 20 07 1 1 20 06 1 2 19 54 1 3 19 24 1 1 19 56 1	55 43 55 43 55 28 55 08 55 17 55 24 55 28 55 16	5220 1870 4240 461 105 3648 5770 9220 3571 600	MO WI MO 7A 7A 7A MO MD MD MD 8A 8A 7A		GREENWELL PANCH KUMALA DITCH CO LTO KOMALA DITCH CO LTO HONOKAA SUGAP CO PEPEENEU SUSAF CO, HAWAII NAT PARK KUKATAU RANCH CO STATE OIV, OF PARKS HAWAII NAT PARK KOMALA SUGAP CO
NDA 712 NDA TUNNEL 2 716 UNAWILI 787-1 ANALUA 770 UNT KAALA 844 UANU RES 4 783	5766 5781 5800 6122 6130 6222 6395 6553	02 HONOLULU 04 WATANAE 02 HONOLULU	2 2 2 1 2 4 2	21 21	158 13 158 12 157 39 157 49 157 48 157 46 157 54 158 09	25 160 538 220 650 410 20 4025	8.4	7A 8A 8A 8A MIO 9A		CAPITAL INVEST CO CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUAPO MKS JOHN H. JEAUNONT BOARD OF MIR SUPPLY EXP. STA. H.S.P.A. JOHN A ROTBURGH FECERAL AVIATION ADM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY	HILO WB AIRPORT R HOLUJALOA 70 HOLUJALOA BEACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181-1 HONOMU MAUKA 138 HONOMU HAUKA 138 HONOMU LA 71 HUALALLAI 72	1492 0 1557 0 1562 0 1665 0 1701 0 1864 0 1963 0 2047 0	2 S HILU 4 N KONA 4 N FONA 6 S KONA 2 N HILO 1 N KOHALA 2 S HILO 4 N FONA 4 N KONA	2 19 43 1 4 19 38 1 4 19 37 1 4 19 27 1 2 19 56 1 1 20 09 1 2 19 51 1 4 19 40 1	55 04 55 55 55 59 55 53 55 09 55 44 55 09 55 53 55 52	31 3220 14 1D89 300 800 1100 6250 8170	7410 410 MI 74 74 74 74 74 74 76 MO NO 64	L 10	U. S. WEATHER BUREAU STATE OIV OF FURESTRY VARIOUS KANCH HANDS MRS MALAE W HUA PEPEEVED SUGAR COMPAR KOHALA DITCH CO LITO PEPEEVED SUGAR C STATE DIV OF FORESTRY STATE DIV OF FORESTRY HUEHUE RANCH
LOLO VALLEY 718 UOA FLAIS 784 ARL CITY TERCE 754-1 RTLOCK ROAD 724-4 I WAHLAWA 820-2 NALUU 884 NCHBOWL CRATER 709 A STEPHENS SEM 788	7150 7664 7810 7933 8126 8172 8310 8316	05 WAIALUA 02 HONOLULU 03 EWA 02 HONOLULU 05 05 01 KOOLAULOA 02 HONOLULU 01 KOOLAUPOKO	2 2 3 2 5 1 2	21 35 21 19 21 22	157 50 158 02 157 46 157 49 157 58 157 43 158 01 157 54 157 51	410 1060 995 1640 240 6 700 20 360	7А	7A 410 410 5P 8A 8A	i.	MAJALUA AGR CO LTO BOAPO OF WIR SUPPLY BOAPO OF WIR SUPPLY JAMES "UNEND GEORGE L. BERNNER PINCAPPLE RESEARCH INST KAHUKU PITN CO NAI MEM CEMETERY BEY R CULLINAN	KAALA 1K1 12 A KAAHALOA 29 A KAHIAWA1 3-4 KAINALIU 738 KAMAOA NO 2 5 A KAMJELA 192-2 KAMJELA 192-2 KAMJELA AIRPORT KAPAPALA PANCH 36 KAPOHO LANDING 935 A	2249 0 2327 0 2512 0 2751 0 3048 0 3077 0 3078 0 3300 0 3369 0	4 N KONA 3 KAU 4 N KONA 3 KAU 1 S KOHALA 5 S XDHALA 3 KAU 2 PUNA	3 19 08 19 4 19 32 19 3 19 02 19 17 19 17 19 17 19 30 19 17	55 34 55 55 55 46 55 56 65 40 55 40 55 40 55 40 55 40	1340 1340 3700 1500 1375 2670 2665 2140 290	7A 7A WI 6A 6A 8A BA 6A VAR	,	HUTCHINSUN SUGAR CO CAPTAIN COCO COFFEE C KARL EMBMEY KONA EXPERIMENT STA HAWAIIAN RANCH CO PARNER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. 10 BOARD OF WATER SUPPLI SHIGED MASUYA
IV OF HAWAII 713 A MIAWA OAM 863 JAHOLE 837 A IALAE KAHALA 715 IALUA 847 A IANAE 798 IANAE MAUKA 8J3 A IAWA 836 A	8738 8815 8945 8964 9185 9195 9231 9238	D2 HONOLULU D2 HONOLULU D3 HONOLULU D5 WAH1AWA D1 KOOLAUPOKO D2 HONOLULU D5 WAIALUA D4 WAIANAE D4 WAIANAE D3 EWA	2 2 5 1 2 5 4 4 4 3	21 20 21 18 21 30 21 28 21 17 21 35 21 27 21 29 21 28	157 49 157 50 157 49 158 73 157 53 157 67 158 07 158 11 158 09	2000 1325 79 854 745 40 32 20 1575	7A	7A 6A 7A 8A 7A 7A 8A WI	125	BOARD OF WATER SUPPLY P. E. WHITE DEPT, OF GENERIESCE WAIAUA AGR CO LTD WAIAHOLE WIR CO LTD WARDLO W BUTZINE WAIAUAUA AGR CO LTD CAPITAL INVEST CO WAIAMOLE WIR CO LTD WAIAMOLE WIR CO LTD	KEAAU 92 KEALWA CAMP 22+1 KEALWAKEKUA 26+2 KEANAKOLU CAMP 124-2 KEHENA 181-2 KEHENA RESERVOIR 176-1A KIOLAKAA A + F 6	3770 0 3872 0 3925 0 3977 0 4098 0 4245 0 4625 0	2 S HILO 1 HAMAKUA 2 PUNA 3 KAU 4 S KONA 2 HAMAKUA 1 N KOHALA 1 N KOHALA 3 KAU 2 S HILO	1 20 05 1: 2 19 38 1: 3 19 14 1: 4 19 30 1: 2 19 55 1: 1 20 07 1: 1 20 10 1: 3 19 04 1: 2 19 44 1:	55 39 55 02 55 02 55 29 55 55 55 21 55 45 55 49 55 38	1123 1080 280 1700 1450 5280 3840 2520 1925 1490	W1 8A 8A 8A 8A W1 7A MO W1 8A		SMIGGO MASUTA HUNDKAA SUGAR CO PUNA SUGAR C PUNA SUGAR C HAWAIIAN AGRI. CUMPAR MISS ANY GPERNELL STATE DIV. OF FORESTR KOMALA DITCH CO LITO KOMALA DITCH CO LITO KOMALA DITCH CO LITO KOMALA SUTCH CO LITO KOMALA SUGAR CO. KOMALA SUGAR CO. KOMALA SUGAR CO.
IKANÉ 885 A IKIKI 717-2 1LUPE RESERVOIR 170 A ILUPE VLY SCH 723-6 1MANALO 794 A IMEA 892 A IMEA 892 A IMEHINA RISE 721 SLANO OF MOLOKAL	9340 9397 9495 9500 9521 9593 9738	01 KOOLAUPOKO 02 HONOLULU 02 HONOLULU 02 HONOLULU 01 KOOLAUPOKO 05 WATALUA 03 EWA 02 HONOLULU	2 2 2 5 3 2	21 30 21 16 21 18 23 18 21 21 21 38 21 23 21 18	157 53 157 49 157 45 157 45 157 44 158 04 158 01 157 47	760 10 170 180 60 420 59	8 A	WI 8A W1 8A 7A 8A M10	ע. ע	WALAHOLE WIR CO LTO HUMULULU 200 BUARO OF WIR SUPPLY MAILUPE VALLEY SCHOUL ST OIV WIR + LAND GEV MAIALUA AGR CO LTD OAHU SUGAR CO BOARO OF WIR SUPPLY	KOHALA 179A A KOHALA MAULILI 176 A KOHALA MISSION 1753 KOIAME LOMER 196 A KOMA AIRPORT 68.3 KUKAIAU 222 KUKUIHAELE MILL 206 KULANI CAMP 79 KUI ANI MAUKA 76 A	4675 0 4685 0 4685 0 4764 0 4815 0 4928 0 4938 0 5011 0	1 N KOHALA 1 N KOHALA 1 N KOHALA 1 HAMAKUA 4 N KONA 1 HAMAKUA 1 HAMAKUA 2 S HILO 5 N HILO	1 20 14 15 1 20 13 15 1 20 14 15 1 20 05 16 4 19 39 15 1 20 02 15 1 20 07 15 1 20 08 15 2 19 33 15 5 19 35   19	55 47 55 48 55 38 56 01 55 21 55 35 55 34 55 18	8300	7A 8A 8A WI 8A 8A 6A 6A 6A 8A WI		KOHALA SUGAR CU K. LYMAN BOND MONOKAA SUGAR CO MAMAJIAN AIPLINES MAMAKUA MILL CU MONOKAA SUGAR CO ST DEPT OF SOCIAL SER U S MEATHER BUREAU ST DEPT OF SOCIAL SER
MALO MAUKA 542.6 INAKAKA1 536 A INAKAKA1 MAUKA 536.5 INELELE PENS 551 A ILAPUU 542 A PULEHU 542 INALOA 511 OKA1 AP 524	3046 3541 3547 4394 4778 6138 6190 6534	O1 MOLOKAI	1 1 1 1 1 1 1 1 1	21 04 21 06 21 06 21 12 21 09 21 04 21 08 21 09	156 59 156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06 156 44	30 60 12 70 560 878 20 1075 450 700	8.4	8A 6A WA 7A 8A 9A 8A 6A	c c	KALAUPAPA SETTLEMENT  **, J. CABSTEN MOLOKAI FANCH LTD MOLOKAI GENEPAL HOSPITA MOLOKAI FANCH LTD. CALIFORNIA PAG CORP H S P A LIBBY MCAFILL + LIBBY ALOHA AIRLINES PUUMOMOU RANCH	KULANI SCHOOL SITE 78 A  LALAMILO FLO OFF 191+1 LANIHAU 68 C LAVA TREE PARK 66+1 MANUKA 2 MAUNA LOA SLOPE OSS MIQULE MOLUALOA 68+1 MIQULE PEN 147-1	5021 0 5260 0 5330 0 5460 0 6134 0 6198 0 6268 0 6270 0	2 S HILO 1 S KOHALA 4 N KONA 2 PUNA 3 KAU 5 HAMAKUA 4 N KONA 1 N KOHALA 3 KAU	2 19 35 15 1 20 01 15 4 19 40 15 2 19 29 15 3 19 07 15 5 19 32 15 4 19 37 15	55 20 55 41 55 58 54 54 55 50 55 35 55 58	5735 2615 1530 650 1760 11146 475 1380 630	8A 8A 410 MIO 8A VAR		ST DEPT OF SOCIAL SET STATE DEPT OF L + N I KONA EXPERIMENT STAT STATE DIVISION OF PAI U.S. WEATHER BUREAU KONA EXPERIMENT STA KAHUA RANCH HAWAILAN RAKCH CO

CONTINUED	NO.	AGE 1	ATITUDE	TUDE	ATION	T		ATION AND ES	OBSERVER	STATION		SION	DISTRICT	IAGE 1	TITUDE	ONGITUDE	ATION	Т	SERVA IME A TABLE	ND S	OBSERVER
STATION	DIVISI	DRAIN	LATI	LONGIT	ELEVA	TEMP.	PRECIP.	EVAP. SPECIAL		3	INDEX	DIVISIO		DRAINAGE	LAT	LONG	ELEV	TEMP.	PRECIP.	SPECIAL	
NAULU FOREST DA.6 NULLI TOP ODALA 223 PAULU 227 ODALA 223 PAULU 227 PAULU 227 PAULU 221 PAULU 232 POHAKUU 232 POHAKUU 332 POHAKUU 332 POHAKUU 332 POHAKUU 332 POHAKUU 332 POHAKUU 332	A 6697 ON 5 KONA 6731 O.2 PUNA A 6806 OI N KONALAA A 6806 OI N KONALAA 7 185 O.2 PUNA A 7 185 O.3 PUNA A 7 1	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19 19 20 14 20 01 19 16 19 34 20 05 20 03 19 12 19 30 19 22 19 47 19 47 19 49 19 49 19 49 19 59 20 02 19 59	155 55 155 08 155 45 155 17 155 53 155 26 155 20 155 29 154 57 155 09 155 09 155 09 155 32 155 32 155 39 155 32 155 32 155 32	200 1400 100 1730 6511	7A 7A	#1 VAR 6AA 7AA VAR 7AA 6AA MO 7AA 7AA MO VAR 6AO MO MO MO	c	KONA EXPERIMENT STA HAMAII VOLCANNES MAT PH LAUPANOFHOE SUGAR CO HISS C. LEONAGE SOM THE BOARD OF MATER SUPPLY HAMANUA MILL CO HAMAIIAN AGR COPPANY HAMANIAN RANCH CO. INC. HAMANA KEA SUGAR CO. HAMAN	PUU MALI 113 PUUOKUMAU 167 PUU OO 82 PUU WAAWAA 94.1 SADDLE ROAD 1 84	8550 8555 8590 8675 8679 8780 8830	01 HA 01 N 02 S 05 N 02 S 03 KA 01 HA 01 N	RMAKUA KOHALA HILO KONA HILO AU AU AMAKUA KOHALA	1 1 2 5 2 3 3 1 1	19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15	155 49 155 26 155 50 155 23 155 51 155 12 155 41 155 23 155 53 155 08 155 47	4850 6960 1800 6340 2520 2340 400 305 3420 1 1050 3830	88	MO MO 7A 6A 7A WM W1 7A 8A 7A	c	GREENWELL BANCH CO KULAIJU BANCH CO W. H. SHIPMAN, LITO W. SHIPMAN, LITO W. S. COAST GUARD SHINLENI KANESHIRO KANDA BANCH

I DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KCOLAU 2-HONOLILU 3-SOUTHE-ENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLICAI: 1-(NO DYTRA-ISLAND DIVISIONS) LANAI: 1-NORTHEANSLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Bawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. O. Box 3650, Bonolulu, Bawaii, or to any meather Dureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA BAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are. Temperature in "F., precipitation and evaporation in inches, and wind sovement in siles. In "Supplemental Data" table directions entered in figures are tens of degrees. Resultant wind is the vector sum of wind directions and peeced divided by the number of observations

OBSERVATION TIME Data in the "Wonthly Extremes"; "Daily Precipitation" table, "Daily Temperature" table; and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station Index shows observation time in local

EYAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind"
Table. Kax and Min in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES. Hawaii state key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual Issue of this publication

### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Dally Temperature" table is indicated by no entry
- + And also on an earlier date or dates.
- ++ Bighest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name is "Climatological Data" table; "Daily Precipitation" table; and "Station Index", indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletims for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- 8 Adjusted to a full month
- J "Supplemental Data" table
- No One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage
- T Trace, an amount too small to measure
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

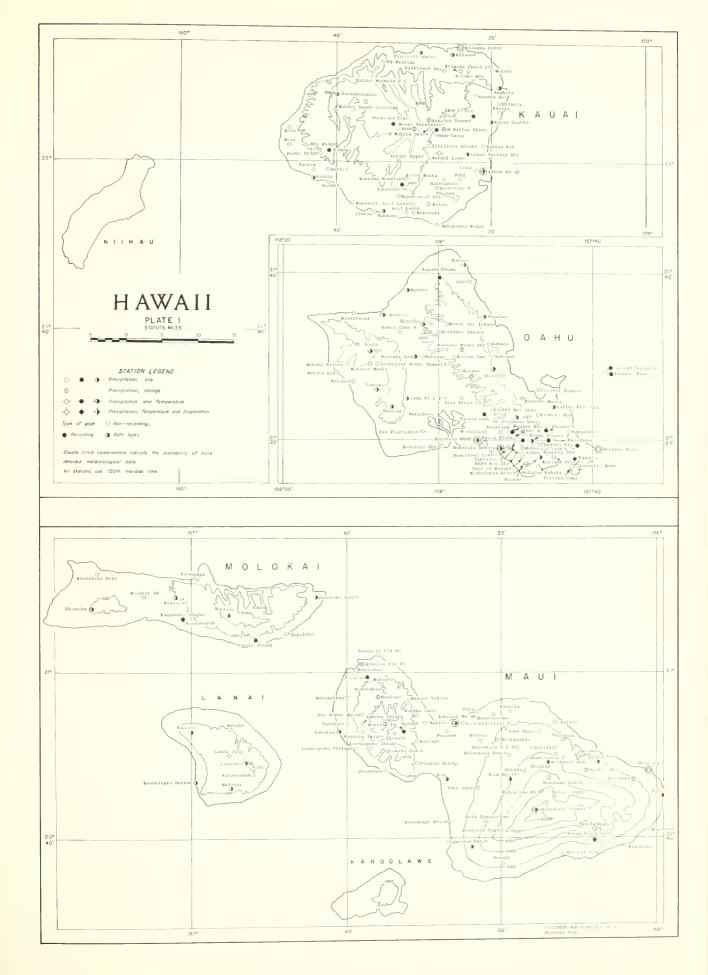
- AR Observation made after rain.
- C In Special Column of Station Index indicates Recording Raim Gage Station. Hourly precipitation values are processed for special purposes, and are published later in the "Hourly Precipitation Data" bulletin. If daily amounts are published to "Climatological Data" bulletin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" bulletin.
- MO Gage road once monthly; usually on the last day
- OC Gage readings at periods varying from a few weeks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sumset.
- VAR Observation time is variable
- WI Gage read weekly or irregularly only
- WM Gage read weekly and last day of month
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

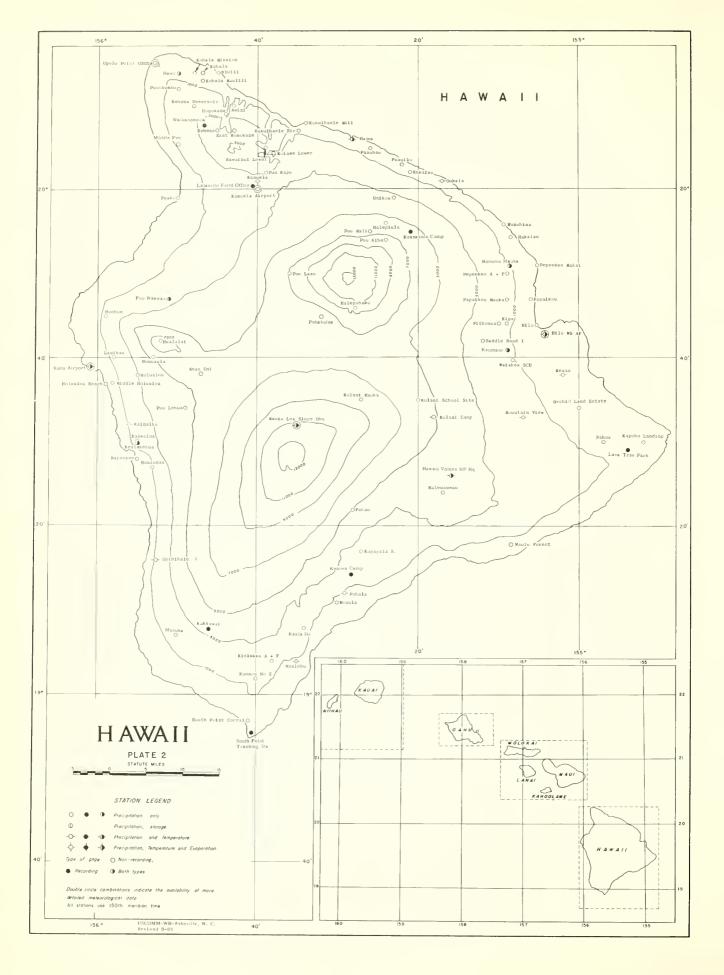
Stations appearing in the Index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue General weather conditions in the U. S. for each month are described in the publications WONTER, VEATER REVIEW, WONTELY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may he obtained from the Superintereduct of Decument, Government Printing Office, Washington, D. C. 2004.

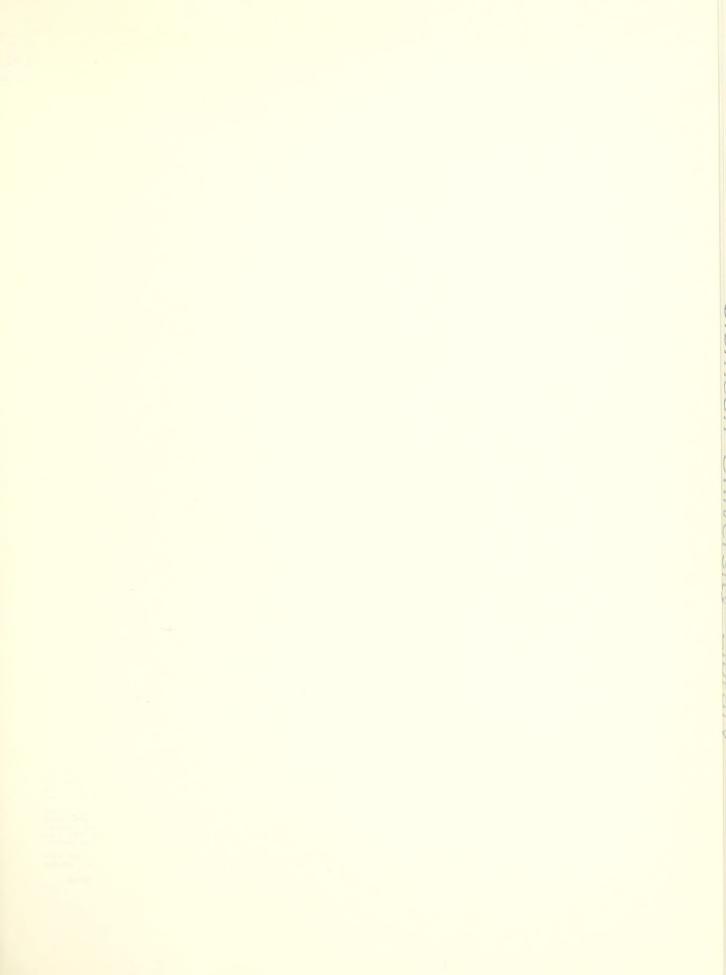
Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may he found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Eureau stations may be found in the latest annual issue of Local Climatological bata, price 15 cents. These publications may be obtained from the Superinteedent of Documents at the address shown above.

Subscription Price: 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be eade payablo to the Superintendent of Documents. Resittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C. 2002.

USCOMM-ESSA-ASHEVILLE- 6/30/67-625











CLIMATOLOGICAL DATA VERS

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

ENVIRONMENTAL DATA SERVICE

AUG 6 1970

HAWAII

APRIL 1967

Volume 63 No. 4

CLIMATOLOGICAL DATA

														7.	C	l)	0 00	. D.	Di					
					1em	perof	ure			 No	o. of I	Days	+		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	7.	2 A(	Kerl		w, Slee	†	Nt	o. of	Days
Station		Average	Average	Average	Departure Fram Narmal	Highest	Date	Lawest	Date	Above aw	32 or X	Mir	-	Tatal	Departure	Fram Normal	Greatest Day	Dote	Tatal	Max Depth on Ground	Dote	ö	.50 ar Mare	1.00 ar Mare
* * * ISLANO OF KAUAI					-											i								
RNAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELD 17 1135 KILAUEA POINT 1133	A A	78.2	49.1 68.1	57.8		73	25+		22	0	0	0		4.03 7.95 3.49 8.04 3.92	-	•08	2.42 1.00	12	.0 .0 .0			10	5	1
KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	78.4 81.4	65.4	71.9 72.7	= .6 .0	83 87	20 26	58 60	17	0	0	00		4.55 1.60 .34 #	-	.18 1.74 .91	.53 .10 5.88 3.55	26	.0 .0 .0		0000	5 1	1 0	0 0
PUEHU R10GE 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	A	77.3	58.1	67.7		83	22	51	10	0	0	0		1.39 1.14 8.29 1.00	-	.78	.80 .48 2.07 .33	15	.0 .0		0	3 16 3	1 0 6	0 0 1 0
ISLANO				68.7										4.41					.0					
1 SLANO OF OAHU																								
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU OAM 833	R	82.5 M 78.5	66.9 M 67.0	74.7 M 72.8	.5		24+	62 57 62	10 18 18	0	0	0 0 0		1.25 1.29 * 5.17 10.46	-	.02 .36 3.51	.70 .61 1.10 2.54	11	.0		0	13	2 6	2
LUALUALE1 804 MAKAPUU PO1NT 724 NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718		78.1 77.3	68.9	73.5 69.3	1.3	84	22	66 57	18+	0	0	0		1.10 1.17 5.84 5.68 9.86		.61 4.17 1.52 2.65	.45 .38 1.24 1.66	12 14 11	.0		0 0 0 0 0	11	0 5 3 7	G 1 2
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA 0AM 863 WAIAHOLE 837 WAIALUA 847	A A	79.6	62.1	70.5	- •3	85			18	0	0	0		7.31 * 4.14 12.13 1.98	-	1.17	1.70	24	.0 .0		0 0 0	4	3 3 2	1
WAIKIKI 717.2 WAIPAHU 750	A	83.8	65.1	74.5		89	23	59	18+	0	0	0		2.40 3.10		1.22	1.12	11	.0		0	6	1	1
ISLANO				72.4										4.86					•0					
# # # ISLANO OF MOLOKAI																								
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	A	79.2	66.9	73.1		84	27+	63	17+	0	0	0		3.13 2.87 2.76 2.93	-	.07 .18 .45	1.36 .63 .79	12	• C		0 0 0	10	2 2 2	0
ISLANO				73.1										2,92					•0			,		
1 SLANO OF LANAI																						10 20		
LANAI CITY 672		77.9	62.8	70.4	3.4	8.	28+	56	10	0	0	0		4.41		1,49	1.65	25	.0		0	8	2	2
ISLANO  * * *  1SLANO OF MAUI				70.4																				
ISLAND OF MADI											1			6.22	_	1.74	1.26	11			0	10	6	2
HALEAKALA B E S 434 HALEAKALA RS 338 HANA AIRPORT	A	58.6 80.0	42.1 66.6	50.4 73.3		6			10 10	0	0	0		7.60 10.31 4.20		1.02	2.22	2 11	.0		0	11	3	3
HONOKOHUA 493 KAHULUI WB AP	A R	80.2	65.0	72.6	8	8	26+	1	21	0	0	0		1.19	-	• 25	.78	10	•0	)	0	2	1 6	
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267	A	78.0	61.7 55.0 63.9	69.9 62.0 74.1	• 6	7:	2 24	50	10	0	0 0 0	0 0		9.01 22.90 4.54 5.74	-	2.52 2.20 2.50 3.05 .16	2.00 1.14 2.45	1	) ( ) ( ) (		0 0 0	10 9		1 2
LAHAINA 361 PAIA 406 WAILUKU 392		84.2	63.9	72.9	.:		7 24		10	0	0	0		1.30	_	1.83	1.10	114	0		0	5	0	
ISLANO		1		67.9										6.39					•0					

### CLIMATOLOGICAL DATA

HAWAII APRIL 1967

NTINUED																							
					Ten	pero	ture										Preci	pitation					
										1	No. of	Doy	3					Sno	w, Sleet		N	No. of	f D
Stotion		Average Maximum	Average Minimum	Average	Departure From Normal	Highest	Dote	Lawest	Date	_	32° or Below X	32° or Below	$\dashv$	Total	Deporture From Normal	Greatest Day	Dote	Totol	Max. Depth on Ground	Date	.10 or More	.50 or More	
ISLAND OF HAWAII																							Ī
	R A	77.7 67.2 81.6	61.0 51.8 67.0	69.4 59.5 74.3	6 .4 2.7	83 73 86	22 27+	45 62	10 11 12+ 10+	0	0	000		6.98 13.27 21.26 7.03 5.30	69 4.87 9.34 4.02 36	2.35 2.74 4.49 2.22	5	.0 .0 .0	0		12 22 16		
AMUELA AIRPORT EAAU 92 EALAKEKUA 26.2 EHENA RESERVOIR 176.1 ONA AIRPORT 68.3	A	72.4 81.0 78.8	55.2 62.6 62.3	63.8 71.8 70.6	•7	78 85 83	25 17• 24 25	47 58 56	13 10+ 9	0 0 0	0	000		24.43 3.99 6.47 1.66	12.01	4.54 1.04		.0 .0 .0	0 0		20 9	2	
UKUIHAELE HIC 199 ULANI CAMP 79 AHALA 21 OHAKULOA 107 UAKO 95A	A	62.9 78.3	45.2 6I.5	54.1 69.9	•1	69 82			11+	0		0		8.48 20.50 3.77 .89 4.79	75	1.59 2.98 .62 .33 2.20	6 22 30	.0 .0 .0	0 0 0 0		13 28 11	5 17 2 0 4	
PUU WAAWAA 94.1 JMIKOA IIB NAIAKEA SCD 88.2														6.75 * 28.44	4.45	1•21 5•35		•0			12 20	6 14	1
ISLAND				67.6										10.25				• 0					

### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 89° ON THE 23D AT WAIKIKI 717.2, OAHU LOWEST TEMPERATURE: 25° ON THE 10TH AT MAUNA LOA SLOPE OBS, HAWAII GREATEST TOTAL PRECIPITATION: 31.97 INCHES AT MOUNTAIN VIEW 91, HAWAII LEAST TOTAL PRECIPITATION: 0.29 INCH AT KEKAHA 944, KAUAI GREATEST ONE-DAY PRECIPITATION: 6.65 INCHES ON THE 22D AT MOUNTAIN VIEW 91, HAWAII

### HAWAII - APRIL 1967

#### SPECIAL WEATHER SUMMARY

Although April contained no greatly damaging storms, its weather was noteworthy for the number of funnel clouds observed, for a fall of large hail, for an unusually high tide, and for several locally heavy rains.

The first funnel cloud of the month, associated with a rain shower, was sighted on the 3d 10 miles west-southwest of Hilo and well inland on the island of Hawaii. On the afternoon of the 14th, a funnel cloud was seen over the sea 4 to 5 miles north of Kahului, Maui, and two others 4 and 6 miles, respectively, northeast of Hilo, Hawaii. Again on the 22d, a small tornado, or a waterspout previously reported over Maalaea Bay, Maui, and which may have moved onshore, damaged several houses in the Waiakoa area.

On the 21st of the month, near noon, a thunderstorm in the Mountain View, Hawaii, area, accompanied by high winds, heavy rain, disc-shaped hail 5/8 inch in diameter (and by an unconfirmed funnel cloud) damaged the roof of a garage, blew large branches from trees, and partially uprooted nine utility poles. A gage in the area recorded 6.40 inches of rain between 11:45 a.m. and 3:05 p.m.

Several other weather events of interest occurred. One was the abnormally high water which on the afternoon of April 10 littered the Hilo Bayfront Highway with debris and caused the Mamaloa Highway at Kapapala, 2 miles north of Pahala, to be closed for 3 hours, due to flooding. On the 17th, Puako in northwestern Hawaii, one of the State's driest localities, with an average annual rainfall of less than 10 inches, received 2-1/4 inches of rain between 9:00 a.m. on the 16th and 4:00 a.m. on the 17th, more than 6 times its April mean.

On the 22d, heavy rain occurred in Oahu's major crop growing areas, while the Honolulu Airport station registered 88°, a record high for April, and 2° above the previous maximum for the month.

For the month as a whole, most of the State had near normal rainfall. Here and there on Oahu and Hawaii Island a few gages received 3 to 5 times their monthly average (Puako, previously mentioned, 13 times its April mean), while in southwestern Kauai and on Maui several gages had less than half their monthly means.

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

HAWA1	l .
APRIL	1967

	-				_										D	of N	onth														APRIL		19
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13	of M	onun 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	3
15LANO OF KAUAL																																	
ANAHOLA 1111 BRYOES#000 5TA 985 EAST LAWA! 934 ELEELE 927 HALAULA 1110	A A A	4.03 5.16 3.14 .81 4.02			.09 .38 .91 .02	.24 .01 .09	.85 .01 T	.05 .64 .03	.01 .02	:	*	.20 .04 .30 T	.54 .66 .54 .34	.45 .12 .06 .02 .70	.43 .07 .06 .02	•27 •01 T	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	1.64 .62 1.00 .31	T		.01 T	•01	*	•02	•06	.05	.23	1.15 .12	.06 .01		*	
HALENANAHO 1006 HUKIPO 945 LLILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 KALIHIMAI RES 1131	A 1	3.24 .71 9.17 9.75 9.84	.50	.70	.71 1.26 1.18 1.00	.09 .70 a	.03 .37 .93	.06	.05 .20 .78 .01	.22	.74	2.90 .26	.33	.64		.32 1.25	.23 2.85	.30	.74 7.05 2.69		•01			.05	•13	•05	.78	.03 3.60 .18		.05 .34 .04	:	.04	
KANALOHULUHULU 1075 KANEHA RESERVOÎR 1092 KAPAA 5TABLE5 1104 KEALÎA 1112 KEKAHA 944	A 1	7.95 0.34 3.49 2.91 .29	*	:	.65 .45 .39	•29	•30	.07	•20	.34	.78	.92 .55 .35	•35 •39 •02	1.20	•10 •15 •09	.17 1.50 .22 .15	.88	:	.04 3.27 .65 .60		.16	.05		*	•	•06		•03		.15 .14 .23	:	*	
(ILAUEA 1134 (ILAUEA FIELO 17 1135 (ILAUEA POINT 1133 (OLO 1033 (OLOA 936	A	5.60 8.04 3.92 .87 4.55	:	.04	.81 .65 .02	.07 .66 .08	.05 .21 .04	.05	.02	.15	* •16	.21 .39 .31 .44	.22 .44 .33	.37 .58 .82 .05	.28 .61 .14	1.25 .67 1.02	.04	.12	1.79	.02 .04 .01		•12	a01			•02	+02	.02 .23 .01	.01	.03	.14	:	
KOLOA MAUKA 994 KOLOKO RES 1137 KUKUIULA 935 LIHUE VARIETY STA LIHUE 1020	A	4.98 6.35 2.82 2.96 2.38	***************************************		1.16 .63 .24 .19 .20	.19 .50 .01 .08	•11 •03	.09	.07 .09 .12	* 12	* * *17	.27 .31 .32 .16	.61 .49 .42 .55	.28 .53 .12 .65	.25 .64 .42 .12	.06 .38 .12 .07	.21		1.31 2.23 .84 .07			•02	•02			.03	+02	.41 .21	.24 .43 .19 .22	•05	:	.05	
.IMUE WB AIRPORT MAKAHUENA POINT MAKAWELI 965 MANA 1026 MOHIHI UPR (R055 1083		1.60 1.30 1.62 *34	.02	• 03	.05	.01 .01	.01 *	T .	.03 .03	.05	.27 .01	.21 .12 .20 .03	•53 •42	.13 .15 1.08 .01	.03	.21 .27 .06	.02 .03	.02	.02		.07	.10 .05	•01					T .	T •07	T	•01	T .	
NOLOAA 1145 WIU RIOGE 1035 WARLUA OITCH 1051 PH WAINIHA 1115 PRINCEVILLE RANCH 1117	1	3.58 .52 8 1.59 0.09	* • 74 • 22	* .48 .16	.25 2.40 .44 .82	.02 .41 .03 .04	.88 .29 1.34	.03 1.52 1.12 .91	.04 .13 .18	n n • 1 2	* *11	.10 2.19 .26 .28	1.42	.29 2.16 1.25 .66	.30 .20 1.34 1.01 .52	.25 1.51 .24 2.00	* 3.55 2.37	* .08	1.50 .28 3.48 .26 .02			.04	•13			•39 •52	• 38	5.88	.52	.08 .41 .10	*	* •10	
UEHU RIOGE 1040 UHI 1013 ESERVOIR 6 1004 WAHIAWA MOUNTAIN 990	A	1.39 3.43 3.09 1.14 1.75	:		.33 .61 .14	.04 .03 T	.03 .03	.01 .05 T	.08		:	.29 .12 .07	.11 .45 .45 .48	.40 .23 .05	.39 .21 .05 .04	.02 .16 .08	.80	:	.80 1.02 .27		.04 T	.03 T				.08	•01 •05	.09 .18		.01	* 1	* 1.75	
AIAHI LOWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 WAILUA 947	A 1	8.29 5.23 .38 2.96 1.00	.46 .83	.30 .37	.59 .85	.57	.10 .35	.13	•17 •15	.09 .15	.25 .44	.20 .26	.72 .95	.83 .63	.32 .92 .14 .40		2.07 3.07 .24 8	.03 .03	.66 .70	•0z		.19				.05 .52	•06 •09	3.05	.06	•03 •02		.03 .05	
EST LAWA! 931	A	2.76	*	•	.32	•02		.02	T		•	.38	•72	•03	•15	T	•	•	•62								Ť		.50				
ISLANO OF OAHU	A	4.32			. 95		.07		.04			.05	1.63	•16	.16	•24			.74							•26							
SERETANIA PUMPING 5TA AMP 84 C P C 807 COCONUT ISLANO 840+1 WA PLANTATION 741	A	1.91 4.29 6.13 1.66	•18 •45 •14	.06 .02 .04	.01 .77 .05	.30	.07	.08	T •02	٠	•16	.04 .03 .07	1.13 .42 .42 .24	.07 .08 .02	•12 •15 •72 •50	.15	1,75 .45	• 22	.97					*	• 22	.01 1.46	.06 .36	T • 36 • 22		.23			
IELEMANO INTAKE 881 OKULOA 725.2 IONOLULU OB5ERV 702.2 IONOLULU WBAP 703 IONOLULU SUBSTA 704	A R	7.86 1.28 1.25 1.29 1.34	.15 .09	.02 .01 .03	1.14		T	1.40 T	* * T	*	* T •03	.20	.20 .61	.02 .13	1.30 .70	* •01 •03	.14 T	.01	2.83		*	*	*	*	•22	.29 # T	Ť	1.28	*10 #	*	:	*	
S P A EXP STA 707 AHANA 883 AHUKU 912 AILUA FIRE STA 791.3 ALIHI RES 5ITE 777	A I	2.81 8.26 9 3.55 6.38	.10 * .01 .32	.15 e .04 .26	.03 4.70 .29 T	.01 * .23 .02	.06 .06 .08	.02	•03 •01 •40	* • OI • 12	1 * •18 •10	.04 5.40 .17 .18 .54	.53	.10 .09		.33 .08 .02 2.48	.07	* * *36	5.64	•	•	•	* T	*	.37	.10 .66 2.00 T	.08 .43	.05	•	.24	* * T	1.86	
ANEOHE MAUKA 781 ANEOHE RANCH 838 APALAMA 773 AWAIHAPAI 841 AWAI IKI INTAKE 880.2	A	5.17 8.79 7.41 1.10 5.80	.49 .23 	.05 9 0	.09 .46 .66 .03	•13 •10	.11 .01 .08	.12 T .66	.03 .08 .52	.09 .26	.07 8 8	.12 .18 .48 .22	.36 .29 1.68 .50	11.80	1.10 1.80 .36 .05	.30 .80 .29 .01	1.06	.°1	.10	T .	T •06	1.20	•90	.14	.03	.01 .52	*08	.35	* 01	.18 1.08 .01 5.80	•27 •27	:	
EMOO CAMP 8 855 OOLAU OAM 833 Ale 903 UALUALEI 804 UALUALEI WTR TUNNEL	A 1	3.50 0.46 5.78 1.10 2.06	.28 1.28 .45	.07 .58	.02 .38 .37	.22	.39	.03	.09		.13 .06	.07 .96 .12	.70 1.76 .69	.25 .10 .09	1.03	.25 2.54 1.12 .01		.90 .02 .31	.01				1.36		* *	.03 .15 .36	•11 •03 •04 •05	•23 •02 •19	1.30 T	.14			
UNALILO HOME 724.2 AKAHA KAI 796 AKAHA VALLEY 800.1 AKAPUU POINT 724 ANOA 712		1.01 .99 1.32 1.17 5.10	.29 .25	.06 .28	+25	•02	.34	.61	.16	.07 .01	• 02	.21 .07 .12 .33	.44	.02 .10 .38	.19 .28	.15	.02 .07									•21	• 04	.05		.04			
ANQA TUNNEL 2 716 DANALUA 770 UUANU RES 4 783 UUANU RESERVOIR 5 775 PAEULA 870	A	0.12 3.58 5.84 5.06 5.68	1.50 .39 .36	.58 .18 .10	.20 .04 .94	•36 •30 •21	1.24 .04 .70 .87	.08 T	.96 .01 .34 .10	•18 •18 •07	.06 .04	.16	1.64 1.30 .82 1.40 I.66	.66 .07 .02 .03		.18 .04 I.24 .34 I.43	.02 .02 .02	* .26	•09						.28	.48 1.08 .58 .31	.02			.04			
ALOLO VALLEY 718 AUDA FLAT5 784 ORTLOCK ROAO 724.4 R1 WAHIAWA 820.2 UNALUU 884	-	9.86 9.08 .77 7.31	1.96	.70 .60	.04 .32 .40	•34 •52	.70 1.88 .07	.08	.56	•14 •36	.40 .10 .04	.46	1.24 1.10 .42 .97	.36 .02	1.10	.38	.02 #	* .12	.02 1.89						* *			•04	.10		•08		
UNCHBOWL CRATER 709 T STEPHENS 5EM 788 AATALUS 2 780.5 NIV OF HAWAII 713 AMIAWA 0AM 863	A	2.47 6.70 7.29 5.01 4.14	.16 .40 .86	.12 .22 .36	.03 .08 .49 .75	•13	•15 •14	.01	.01 .02 .12	.01 .22 .24	.01 .07 .05	.06 .11 .20	1.20 .47 1.14 2.17	.13 .36 .27	.18 .85 .17 .85	.34	.01 1.20 .04	.01	T •10					.01	.01	.08	.07 .08 .48	•11		.43	- 98 T		
Alahole 837 Alalae Kahala 715 Alalua 847 Alanae 798 Alanae Mauka 803	A 1	2.13 1.42 1.98 .65	• 02	*	2.65	•17	.75 .03	.29	•11 •05	.06 1.02	* T	.83	.98 .70 .65	.93	.33 .61	.14 .01 .05	3.05	.03	2.05		.02		•02		.04	1.56		.06 T	.03	.62 .20	* 06	.15	
AIAWA 836 AIKANE 885 AIKIKI 717.2 AILUPE RESERVOIR 170 AIMANALO 794	A 1	2.90 0.95 2.40 2.88 3.38	1	* 15	2.18	*	* * * * * * * * * * * * * * * * * * *	* T •68	5.90	9 9	* * T * *	2.65	.87 1.12	.19	* • 39 1•96	5.15 .81 .15	* • 06	*	# 2.46	:	*	.18	.87	* *		* •50 •05	* * * * * * * * * * * * * * * * * * * *	* T	.06	.84	:	.14 1.48	
AIMEA 892 AIPAHU 750 ILHELMINA RISE 721	A A	3.60 3.10 3.08	*	.18	.45	.04	•02	.04	•22		.06	.20 .22 .01	1.04	.32	.07 .80 1.09 .28	.05 .10 T	.55 # .02	* *	•40 1•23		.02			•	•75	•18 •04	.04	.01		.02	•16		

See relevence notes following Station Inde

Continued									_	<i>-</i>					<b>711</b>			111	J14	_											HAWA1 APR1L		1967
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
1 SLAND OF MOLOKA1																												20				00	01
KALAUPAPA 563 KAUNAKAKA1 536 KEONELELE PENS 551 KUALAPUU 534 MAPULEHU 542	A A A	3.87 .36 2.99 3.13 2.87	# # •27	* * •04	* • 10 • 32	T *	*10 *	.41	• 42 • •06	* 61	.05 e e	.15 * .24 .03	.10 .88 1.36	.02 .63	T •08 •40 •35	.09 * .22 .10	.90	.31	1.55	•				• • • • • • • • • • • • • • • • • • • •	* *	# T	•16		.06	.07 .10	•09 *		
MAUNALOA 511 MOLOKAI AP 524 PUUOHOKU RANCH 542+1 WAIKOLU 540	A	2.76 2.93 2.98 10.05	.41 .35	* T • 2 2	•12 •17 1•48	T #	•		.04	* 18 • 32 *	.08	.06 T .12 3.92	.65 .90	.04 .28	.79 .14	.36 .71	•15 •50	4.51	.42 .02						•02	.13	*12 T	*		+92 #			
ISLANO OF LANAI																																	
KANEPUU 690 KAUMALAPAU HARBOR 658 LANA] CITY 672 LANAIHALE 684 MAHANA 694	AAAA	1.27 .39 4.41 6.99 2.82	.07	e F T e	.03	*		.44	.07 †	.39	T e	.05	* 11 •10 •	•12	.01 1.84	1.37	.07	.03	* *15		.06 2.97	• 02		:	* T * *	*	* 18 1.65	* 11	.47 T .67	*22	.05	.07 .87 2.82	
MALAUEA 676 WAIAKEAKUA 685	A	1.59	•	•	.35	•		T e	:	*	:	.60	:	.30	*62	*	:	:	•96	:	.02	:	:	:	:	1.46	• 35		.85			.10 .34	
ISLAND OF MAU1																																	
AUWAH1-252 MALEAKALA B E S 434 MALEAKALA RANCH 432 MALEAKALA RS 338 MALEAKALA S UMM1T 338.4	A A A	5.71	2.20	.61		* •01 •20	.06 .06	.43		•29 •11 •03	.54 .14	1.85 .04 .62	1.26 1.00 2.22		.10	1.30 .10 *	.64 .86 .78	* T .30	.19 .03 .03		e T			* T	* 16	.05 .91 .21	•56 •25	.03 .03			•90 •51 T	.03	
HALIIMAILE 423 HAMAKUAPOKO 485 HANA 354 HANA AIRPORT HANAHULI 281		2.53 6.68 10.31 3.79	1.66	• •13 •17 •05 •25	.55 .05 .04	.06 .18 .47	.06 .12 .11	.75 .25 .04	.04 .11 .03 .48	* •15 •51 •60 •31	.24 .03 T	.57 .02 1.09 .09	.66 .32 .09 1.00	.18 T .27 .01	.03 .03 .03	.04 .49 .02 .05	.02 .09	T 1.01	.39 .01 .03	T .04	T •02	, 01	.01	* 1.28	.05 4.61	•03 T	.05 .06		T		.06 .07 .16	* T .05	
HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOMANU GULCH 341 KAHOMA INTAKE 374	44444	5.97 11.50 4.20 7.40 10.19	:	:	* • 65	* •02 *	.03	.29	.03 .4.73	.10			1.30	.11	4.00 .02	* • 43 *			.53			.61 .02	* * * * * * * * * * * * * * * * * * * *	:	:	.60	:	:	:	* * 2.19	* 1	.17 1.50 .02 7.40	
KAHULUI WB AP KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAHUA 410	R	1.19 10.75 9.01 4.17 1.34	2.00	T .80	.33	.30	T * •39	7 * •34 *	.08 .36 1.20	T50	T	.78 .05	.01 1.24 *	.19	.26	T .05 1.82 .03	T *	.08	*44	:			• 17		• 21	T * 48	13 ************************************	*		T •	•02 • 1 •55	0.75	
KEANAE 346 KEAWAKAPU BEACH 260.2 KIHEI 311 KIPAHULU 258 KULA HEIGHTS 323.2	A	22.90 .30 .88 4.54 4.02	* •06 •02 1•14 •82	.40	•	.14	.40	.33	٠	* T .33	.02	.01	.03 .01 .30	.01	.19	•05	T		.12	•	•	•	٠	•	* •87 •18			.01	•	*		2.90	
KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442	A A A	5.74 .89 5.20 1.10	.17 .07 .15	.03 .34 *						.06 #	.02 e	.05	.07 .18 .05	1.30	.30 .17 *	.03 e	2 • 45	T .02	.24					.05	.32	. 24 e	*17	•18	T .			5.20	
MAHINAHINA 466 NAKALELE -FLO 60-497 OLINDA 332 OLOWALU 296 OLOWALU GULCH 377	AAAA	3.37 3.90 35.66 .58 2.40	.43	:	•42 •68	24.00 *	:	.27	.10 e 2.74	• 26 •	.04	1.22	1.10	.33	*07 7*05 *50	.05 .51	:	.30 * .05	1.94			:	:			•03		:	:	1.36	:	.03 *	
PAAKEA 350 PAIA 406 PANILEIHULU 259.2 PAUWELA 490 POHAKEA BRIOGE 307.2	A	24.84 1.30 12.06 4.24 .77					1.19 3.70 .19	.05	.01		.29	T *	1.56 .32 .42 .13	.40	.04 .05 * .10	.15 * .06	.21 .01	.07	*40 T *	*		•			5 • 46 #	•29 •	.31 8.36		•	•	3.72 .04 .07	.28 T	
POLIPOLI SPRINGS 267.2 PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNENE 396 SPRECKELSVILLE 400.2	AAA	5.67 26.40 9.20 1.13 1.35		* • •11	*	:	.79		:	* * *08	.05 .08		.65 .60	* * T	.17 * .28 .20	* * T •04	.05	.02	:		•63	•	:	•	*	:	*04	2.24	:	:	* 2 * T • 02	6.40 9.20	
TWIN GATES 261.3 UKULELE 333 UKUMEHAME 301 ULUPALAKUA RANCH 250 WAHIKULI 364	AAAA	1.95 8.41 .56 2.94 1.54		.56	• • • • • • • • • • • • • • • • • • • •	*	*		*	.14	.05	.29	.08	1.04	.48 .30	:	* *	:	1.60 e	:	*	•	:	* * * * * * * * * * * * * * * * * * * *		• 04	.11	:	:	:	*	8.41	
WAIEMU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI OAM 336 WAIKAPU 390	A	4.24 /19.15 14.20 18.25 /12.98	:	:	.09 .20 * 7.44	.06	* •61	1.51	• 37	.67 .62 *		.33 .44 .44 1.43 .20	.16 .20 	.29 .48 .63	.01	1.53 .52 .55 .04	.65 .05 e	.02	* •77	e T				:	• 05 • 25 •			.14	e T	•	1.30	.13 .19 .4.20	
WAILUKU 392 WAIOPAI RANCH 256 P P ISLANO OF HAWAII	A	2.79	•22	T			•	•	•30	*66	.15	,53	•61	.03	1.10	•01	T								***	•27					•	•	
AHUA UM1 75 AWINI 182-1 EAST HONOKANE 1838 HAINA 214 HAKALAU 142	4 4	5.70 12.89 13.05 6.98	:	.54	.24	* * * *01	•02		* 1.41 * .03 .15		.18	.12	1.88 8 2.35			.05	e e e +24	:	.88 .04	.03		•		* * * .05		.15	* .02 1.02		•02	.03 13.05	• 22	5.70 e .52 .75	
HALEMAUMAU 52 HALEPIULA 117 HALEPOHAKU 111 HAWAII VOLCNS NP HO 54 HAWI 168	A A A	7.18 6.85 4.19 13.27 3.02	.47	:	1.46	* * 19	*	2.74	.16	.76	:	1.97	.03	1.35	.02	* * •44 •05	1.00	.01	.29 .79	.36		* * T	* * T	.48	:	.19		.25	.06	* 1.86	* *	7.18 6.85	
HILO WB AIRPORT HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAU 27 HONOHINA 137	RAA	21.26	2.03	*31	1.27	.89	4.49	.36	.73 .34	Ť.	.04 .20	.32	*16	.07	T	.08	• • 02	.63	1.62 .10	.45		T •	*51	.08	.02		.18	.64	.18	T 6.66	2.24 ***********************************	.09 .02 .72	
HONOKANE 181.1 HONOMU MAUKA 138 HONUAULA 71 HUALALA1 72 HUEHUE 92A	A A A A	13.50 26.72 7.60 6.45 7.03	2.20		3.96			1.95	•12 •60	.68		2.08	2.97	.0=		:		:	1.93	.05	.09	:	*	1.63	1.09	*	1.92	*	6.45		3.20	:	
KAALA IKI 12 KAAWALOA 29 KAINALIU 73B KAMAOA NO 2 5 KAMUELA 192-2	A	6.01	2.22	10/0	1.43	•02		1.20 .36	.56	.13		.32	• 38		•61	•16 •07 •	.55		.35 .07		.15 T		٠	* .10	+62 e	.50 .46 .48 a	•21 •07	.93	.07	.07	.85 * 1.21	.05	

ee reference notes following Station Inde

Continued																					_									APR1L		1967
	otaj													Day	of Mo	onth																
Stalion	T <sub>o</sub>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA AIRPORT KAPAPALA RANCM 36 KAPOHO LANOING 935 A KAUMANA 88-1 KAWAINUI LOWER 193 A	14.98 29.00 30.28 14.35	2.32	.03 # .90	.03 .23 2.86	.06 .05 .89	.01 .31  2.00	5.41	4.32	•12 •90 •	* .03	T I.000	.16 .04 .02	.07 3.10 e		.06 .30 2.49 .01 4.55	.07			T 2.95 2.24	.05 .11		1.47	2.00	•	*	2.00	.06		0.72	.02 3.05	*	:
KEAAU 92 KEALAKEKUA 26.2 KEMENA 181.2 KEMENA RESERVOIR 176.1 A KIOLAKAA A 7 F 6	24.43 3.99 9.35 6.47 5.80	1.04	1.59	2.92	.06		4.54 T .65	.14 .05 e	.30 .43 .43		.24 .93	.50 I.22	.29 # .02	* 02	.01 .45	.69 .09	*	.24 e .96	.70	*18		.07	2.20	.93 T *	.31 .34 .02	2.43	.04 .57 .02	T * .48	.03 9.35		.76 .21 * 5.80	•
KIPA 89.2 A KOMALA 179A A KOMALA MAULILI I76 A KOMALA MI55ION 175.1 .KOIAWE LOWER 196 A	28.57 5.21 6.29 4.91 8.69	.40		2.56 .94 1.65 .32	.78 T	-07	.64	.66 .17 .08 .11 3.85	.69 # .40	.88	.05 1.81 1.05 .02		.04 .02 .03 .01		2.72	T * • •05	***	.48 .72 .96 .79	1.29 T	.38		T 1.78	1.18	*	.05	1.79 .02 T	.41 .03	.06 .10 .06	.28	.26	.26 # .06	•
KONA AIRPORT 68.3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 206 KULANI CAMP 79	1.66 15.52 8.48 6.84	1.05	1 • 47 • 42 • 33	.80	.03		2.65 .48 .31 2.98	.11	.24 2.63 1.46 .78 .80	.55 .28 .15	.40	2.25 .80 I.31	.20	.14 1.28	.05 .35	.09 .04 .02 .03	T .10	.15 .57 1.59 1.73	•02	.40	.07		.08	•05 2•22	•40	.06 .08	.20	.04			.03 .84 .60 .55	•
KULANI MAUKA 76 A KULANI 5CHOOL 51TE 78 A LANIHAU 68 C MANUKA 2 A MAUNA LOA 5LOPE 085	5.55 15.96 6.74 11.05 2.06	.65	.20		•10 •	1.05 e	.77	.14 7.00 .76	* •42		.86 .06		•			.06	•	.22 .62	*10	٠		2.34		.71 * .55	.58 4.83	.48	1.40	* •10 •55	4.62 .36	**	* 1.30 * .18	•
MIOOLE HOLUALOA 68.1 MIOOLE PEN 147.1 MOAULA 18 A MOUNTAIN VIEW 91 NAALEHU 14 A	V 5.33 2.66 4.00 31.97 2.46	1.50			.38 .04	* 1.90 .08	* 4.76 1.00	*11 * .38 *04	.04 .29		* •23 •30	a •14 •04	e •64 T	*06	.10	# 1.27	•	.44	1.98 e .51	•		.11	6.65	* 2.80 •10		.36 	* •34 •03	.70 * .07	•02		4.00	•
NAPOOPOO 28 A NAULU FOREST 38.6 NIULII 179 A OOKALA 223 OPIHIHALE 2 24.1	3.19 9.10 4.49 14.46 3.59	1.18	2.06	.75	•05 •13	.27	.68	.19	* T * 1.50	# T # 668		1.27 2.33 T	.05 .05	* T	• 52	.16 * .02	* T *	.35 .40 .72 .79	.34	* T •25	• т	•	.16	.41	.07			*.09 T	* T • 01		.67 .03	•
ORCHIO LANO EST 91.5 A PAAUHAU 217 PAAUILO 221 PAHALA 21 PAHOA 65	22.03 6.89 13.49 3.7 30.4	9 .43	. 92	.55	T .04	.09	.98 2.81 .22	.03	.29 1.73 .04 .23	.38 .60	.18	* 1.86 2.08	.01 .07 .02 1.36		1.53 .01 T	.06 .02 .03	* •01	.58 .64 .38	.01 .28	•	*	.24	.02 .05		.09			.15	.18	.45 2.20 .28	.30	
PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140-I PEPEEKEO MAKAI 144 PIIHONUA 89	24.60 20.30 26.20 15.60	2.46	9 1 • 9 4 1 • 6 (	2.22	.53 .94 1.03	1.74 1.33 1.17	5.22	.6B	**************************************	.01	.07 .03 .07	* .83 1.33 .74	* T T			e T T		.13 .10 .13	.33				.85 2.09 .30	1.02	.02	2.54 2.10 2.15	.05		86.08	1.36 2.70 .47	24.60 1.05 .55 .95	
POMAKULOA 107 A PUAKO 954, PUU KAPU 192.1 A PUU KIME 120 A PUU LAAU 102.1 A	.8: 4.7: 3.2: 8.3: 5.8:	9 +04	.0		:	:	*	.08 a a	:		*		.01 *		* 17	1.07		.15 2.20		.01 #		*	:	.09 *	:	.57	*	.85 *	3.22		.33 * 8.35 5.85	•
PUU LEHUA 73 A PUU MAL1 113 A PUUOKUMAU 167 PUU 00 82 PUU WAAWAA 94.1	11.9	1 1.24	e e e + 6:		.25 .04	.06 .45	2.25	.36	* * *	* * •13	.78 .21		.10 .55	.02	.IO	.06 .64	.01	.93 .10	.04	.05		:	.06	* * * 2.40	.04 .21 .41		.19		.10 .58			
5AOOLE ROAO I 84 A SOUTH POINT CORRAL 3 A UMIKOA 118 UPOLU POINT USCG 159.2 WAIAKEA 5CO 88.2	2.0	7 0				.48 .33 .10	.62 .26		* • 39 • 02 • 29	.16	1.42	. 49	* 1.15 .21		.96	* •01 •38 •05	.07	.67 .61		.35				* 04 5 I+23	.03		.05	:	5.50 * .05	•13 I•13		

# SUPPLEMENTAL DATA

		(	Wi Speed -		.)		Relati	ve hum	idity ave	rages -		Num	ber of d	ays with	precip	itation			Inset
Station	Resultant	Resultant Speed	Åverage	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 Am	TH MERI 8 AM	DIAN TI	ME 8 PM	Trace	.0109	.10–.49	6605.	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO. HAWAII. WB AIRPORT	25	0.8	6.7	18	E	24+	83	77	75	83	5	5	5	3	3	5	26	34	8.0
HONOLULU: OAHU: WE ATRPORT	5	4 • 6	8 • 2	30	ΝE	10	77	70	59	68	9	3	3	1	0	0	16	65	5.5
KAHULUI, MAUI, W8 AIRPORT	6	6+0	9.9	29	NE	05	83	78	61	74	10	4	1	1	0	0	16	64	6.2
LIHUE + KAUAI + WB AIRPORT	4	6.9	10.6	30	NE	11	84	76	69	79	7	10	4	1	0	0	22	61	6.1

														-		Day (	Of Mo	nth													PRIL		19
Station		1	2	3	4	5	6	7	8	9	10	11	12	13		-	16		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
* * *																																	N.
SLAND OF KAUAI																																	
ANALOHULUHULU 1075	MAX	70 55	73 54	67 55	68	64 54	68 52	67 50	66 48	59 50	57 51	58 52	60 52	63 51	6 8 50	66 52	6 <b>7</b> 50	63	63	62 48	62 42	68	67	70 45	72 46	73 46	70 47	70	70 49	70 48	72 54		66
ILAUEA POINT 1133	MAX	77	77 69	77 68	77 70	74 69	77 68	78 68	75 66	75 65	76 63	75 66	75 66	79 68	75 66	77	76 64	79 69	79	8.0	80 68	80 68	81	82 72	82	82 73	84	83	78 70	78 68	79 70		78
.IHUE WB AIRPORT	MAX MIN	77	78 70	78 70	79	77 72	78 70	78 65	73 63	75 60	77 65	76 65	78 66	73	78 66	76 67	78 61	76 58	80	80	83	80	79 60	81	82 73	8 2 7 1	82	81	78	78 65	80		78
MAKAHUENA POINT	MAX	80	80 70	79 70	80 71	82 71	79 70	79 72	80 65	77	79	77	78 65	79	81	79	81	79 60	81	80 58	81 70	84	83	83	83	85 63	86 71	83	87	82	68 82 67		81
ANA 1026	MAX	82	84	81	80	82 67	81	81 63	81	75 63	77	81	79	81	80	80	80	77	78 62	80	81	85	84	84	85 66	83 67	87	85	82	81	84		81
IU RIOGE 1035	MAX	83	83	81	82	84	80	83	82	81	81	77 62	80	78 60	78 61	78	80	81	80	78 59	78 59	80	80	80 58	81	81	80	80	80	81	81		80
AIAHI LOWER 1054	MAX	76 62	75 63	75 64	77	74 62	75 63	76 60	77 57	74 57	73 51	74 53	75 56	78 56	74	78	78 55	75 52	77	78	78 55	81	83	81 56	58 80 60	58 82 62	60 80 64	60 80 58	78 59	78 55	65 78 63		77
						•			,	,		,,	20	,,,		00	,,	,,		,,	,,		,,,	50	60	02	07	28	29	22	03		58
SLAND OF WAHU																																	
WA PLANTATION 741	MAX	82	80 67	78 67	82	82	83			79	79		81	82	82	84	82 64	81	79 59	82	82 61	84	81 62	85 65	87	85 68	88 65	86 65	86	85	86		82
ONOLULU WBAP 703	MAX	81	80	79	83	81	83	83	79	80	80	82	82	80	81	83	81	81	81	82	82	83	68	84	88	85	86	85	83	84	65 85		82
ONOLULU SUBSTA 704	MAX MIN	71 78 71	69 77	70 77 71	79	70 76	71	77	73	74	77	77	78	77	78 47	80	65 79	77	78	79	65 79	81	84	84	83	71 83	82	80	82	78	80		78
AHUKU 912	MAX	/1	71	79	76	71	76	78	66	65	78	77	76	78	78	68	67	78	79	82	81	80	69	71	82	82	82	82	83	72	72		68
ANEOHE MAUKA 781	MIN	79	76	74	75	77	75	78	77	74	71	76	72	80	80	81	78	59 78	78	79	82	83	83	83	62	83	71 60	82	67	77	77		76
AKAPUU POINT 724	MAX	78	75	76	75	70 76	74	76	76	72	74	74	76	80	77	70	80	79	76	79	79	83	84	82	82	70 81	81	80	81	79	79		78
PAEULA 870	MIN	78	68 74	70	70	68 75	72	70 76	66 78	73	75	71	75	67 76	70 76	79	78	69 76	77	70	70 79	68 78	73 83	72 82	83	82	80	82	70 78	68 79	71 62		77
RI WAHIAWA 820.2	MIN	78	64 76	81	63	63 81	79	63 80	59 78	58 76	79	60 75	78	59 77	59 75	76	79	57 79	79	79	81	58	82	5.8 8.2	84	65 85	63 82	63 85	80	65 81	62 83		79
AIALUA 847	MIN	82	66 78	77	81	81	80	81	62 77	73	58 76	62 78	77	61 77	59 78	80	78	57 78	78	57 83	5 <b>7</b> 84	83	81	62 83	85	87	63 85	86	83	81	79		80
AIKIKI 717.2	MIN	81	66 82	82	80	83	61 83	61 82	62 83	63 80	63 82	58 82	81	61 83	60 82	84	63	63 83	81	59 84	83	59	60	60 89	87	65 88	63 88	87	68	69 87	61		83
	MIN	71	69	70	65	70	71	67	65	65	60	65	60	62	62	64	62	59	59	61	61	61	63	66	68	69	66	67	66	69	69		65
SLANO OF MOLOKAI																																	
OLOKAI AP 524	MAX	78	78	77	76	81	77	79	76	74	76	78	77	79	77	80	80	79	77	79	80		80	82	84	83	84	84	80	79	79		79
	MIN	69	69	69	69	70	69	69	64	64	65	65	63	65	65	66	71	63	66	67	67	64	66	68	66	68	67	70	67	66	71		66
SLANO OF LANAI																																	
ANAI CITY 672	MAX	72	73	76	72	75	73	74	74	76	72	74	77	76	77	78	78	76	79	79	80	81	82	83	84	85		87		78			77
	MIN	64	63	64	64	64	65		64			62		62	60	64	63	59	58	62	61	60	65	68	64	65	65	63	63	65	64		62
SLANO OF MAU1																																	
ALEAKALA RS 338	MAX	62	61	59	57	60	67	61	57	59	55	49	54	55	56	59	57	57	53	54	58	59	59	59	59	60	60	64	62	62	63		58
ALEAKALA SUMMIT 338.4	MIN	47	44	41	43	45	45	62	36 50	36 48	35 50			45 62	41	42			40	40	42 50	51	38 58	41 56	50	54	45 55	54	55	52	45		51
ANA AIRPORT	MIN		36	34 78	34	35 80	34	37	33	29 75	27 76	31 77	33 80	40 81	80	36 82	83	34 76	35 76	38	41 80	83	41 83	39 81	82	45 84	83	83	84	81	78		80
	MIN	67	68	71	69	69	70	70	63	60 75	59 77	63 76	62 80	63 78	80	63	66	66	66	63 83	71 81	81	84	67 87	74 85	72	69 87	75 82	65 80	68 79	69 81		80
AHULUI WB AP AILUA 446	MIN	78	69	78 65	62	66	70	67	62	61	64	63	62	66 78	63	65	67		62	63	63	60	63	64	82	66	65	65	65	70			65 78
	MIN	67	67	62	65	62	62	67	60	57	63	56	62	59	64	61	61	61	67	60	60	60	61	61	78	72	63	62 71	62 71	62 72	69		61
ULA SANATORIUM 267	MIN	57	55	56	54	55	55	54	53	51	50	51	52	53	54	55	56 83	57 83	56	57	54	55	56	56	57 87	57 87		57 86	56 85	57 86			55
AHAINA 361	MAX	67	66	85 66	61	63	65	64	83 66	63	59	62	61	63	63	65	63	61 81	61 81	83	63 85	63 85	64 85	69	64	67	65	65	65	66	62		63
AILUKU 392	MAX	78 66	8 I 67	78 66	78 63	83 65	77 67	8 I 66	80 62	78 62	79 59	80 64		60	63	63	63	63	61	61				63	68			65	65	68			63

Continued									D	ΑI	LY	TI	EM	PE	RA	T	UR	ES	,												MAII APRIL		1967
																Day (	Of M	onth															age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
n n n												1			-																		
ISLANO OF HAWAII																																	
HAINA 214	MAX	76 62	78 62	73 63	77 58	78 63	68 62	76 61	78 59	67 57	68 55	78 57	76 59	79 59	79 60	79 60	80 61	76 63	76 60	82 63	82 61	82 61	81 61	83 62	81 63	83 64	80 61	80 63	82 64	83 64	70 63	N	77.7 61.0
HAWAII VOLCN5 NP HQ 54	MAX MIN	68 54	70 54	62 54	59 51	6 2 5 3	60 53	59 54	66 50	63 48	64 46	66 45	68 46	68 49	68 49	68 52	69 48	70 56	68 54	68 55	72 48	72 51	73 52	71 52	67 54	69 55	68 52	70 51	70 56	72 55		1	67.2 51.8
HILO WB AIRPORT	MAX	82 68	81 69	78 68	81 67	73 68	79 68	82 68	77 68	78 64	80 62	80 62	82 62	83 65	83 68	83 66	83 67	81 67	82 66	83 66	84 66	86 68	84 67	84 69	82 68	84 70	84 68	86 68	85 68	77 70	80 70		81.6 67.0
KAINALIU 738	MAX MIN	78 63	78 62	78 61	74 59	78 62	78 62	76 60	77 60	77 54	75 54	78 57	77 59	77 59	77 59	78 60	78 60	78 61	79 60	80 61	82 61	80 62	80 62	80 61	82 61	81 61	78 61	76 62	75 62	77 65	80 63		78.1 60.5
KAMUELA 192.2	MAX	69 63	71 58	66 57	67 50	72 53	70 58	69 57	75 55	70 50	70 50	68 50	74 51	73 48	78 49	77 49	74 49	75 53	75 46	76 48	77 46	78 49	80 49	77 53	80 53	78 52	76 52	75 55	74 58	78 58	72 56		73.8 52.5
KAMUELA AIRPORT	MAX MIN	69 58	72 59	70 61	69 60	73 53	68 59	71 58	72 56	70 48	69 55	68 54	72 55	70 47	74 56	74 54	72 53	73 54	74 51	73 54	73 51	75 53	77 54	75 54	76 60	78 54	72 57	75 56	70 56	74 57	73 60		72.4 55.2
KEAAU 92	MAX M1N	83 63	83 63	83 63	76 63	80 63	70 64	75 64	79 58	79 58	79 58	78 60	79 60	81 61	81 63	85 63	85 63	85 63	80 62	82 62	83 63	84 64	83 64	83 64	83 64	78 65	80 65	82 63	84 64	83 64	83 64		81.0 62.6
KEALAKEKUA 26.2	MAX M1N	80 65	79 64	75 63	74 61	77 63	78 63	77 62	79 62	77 56	75 58	77 60	79 60	78 61	78 61	78 61	80 61	8 O 6 3	80 62	81 62	80 62	81 63	82 64	82 64	83 63	81 64	79 63	79 64	77 63	78 66	81 65		78.8 62.3
KOHALA MISSION 175.1	MAX	77 65	76 66	75 65	76 63	78 66	74 65	77 65	76 63	70 60	74 59	75 62	77 62	81 62	80 63	79 64	83 65	80 65	78 62	83 63	82 63	82 63	82 65	82 67	81 65	80 65	79 64	80 66	79 65	80 67	<b>7</b> 7		78.4 64.0
KONA AIRPORT 68.3	MAX MIN	80 66	80 65	79 65	82 65	81 68	80 67	80 66	81 65	80 60	78 61	81 61	81 63	80 63	80 64	81 64	81 64	81 64	82 64	82 65	82 65	83 63	83 64	83 64	83 65	86 66	83 67	81 66	78 65	84 68	82 67		81.3 64.7
KULANI CAMP 79	MAX M1N	65 50	65 52	65 50	63 51	56 45	57 50	58 49	60 47	60 41	69 37	59 37	63 38	63 40	63 45	62 44	65 45	65 44	62 44	63 45	67 41	68 41	62 45	61 42	61 46	67 50	61 41	65 43	67 48	62 51			62.9 45.2
MAUNA LOA SLOPE 085	MAX M1N	48	47 33	44 31	46 31	50 34	44 35	47 34	46 32	46 28	43 25	44 26	52 29	49 33	47 33	54 35	54 37	53 34	55 35	53 37	56 34	54 33	49 30	45 31	48 36	48 35	51 34	5 1 3 3	52 36	54 35			49.4 32.8
MOUNTAIN VIEW 91	MAX	76 60	75 62	74 61	70 59	73 60	65 59	68 61	73 57	69 53	73 54	74 54	74 53	78 54	79 55	80 57	79 56	81 58	76 58	78 57	80 57	81 57	80 58	77 62	77 60	74 60	74 60	77 59	79 58	80 60	70 63		75.5 58.1
NAALEHU 14	MAX M1N	80	79 64	79 64	73 65	79 65	72 65	76 66	76 66	78 65	78 58	79 59	79 59	81 62	81 64	81 62	82 62	83 62	84 63	82 63	84 63	82 67	82 67	82 67	82 67	81 66	78 66	80 65	79 66	80 65	80 65		79.7 64.2
OOKALA 223	MAX MIN	80 71	81 65	77 65	76 65	80 65	70 65	77 65	80 63	71 62	72 60	78 62	76 63	81 63	80 65	80 65	84 66	78 65	78 65	81 66	81 66	83 67	84 67	82 67	80 66	82 66	80 67	80 67	85 67	81 67			79.1 65.3
OPIHIHALE 2 24.1	MAX M1N	78 62	75 61	74 57	77 58	76 62	78 63	75 60	75 55	76 53	75 53	78 56	78 56	78 56	80 57	78 59	80 59	79 58	78 58	81 59	81 60	81 60	84 61	81 61	78 61	81 61	77 63	80 64	75 64	79 62			78.1 59.3

### EVAPORATION AND WIND

MAX 78 78 78 77 79 75 79 77 77 79 78 79 81 82 82 82 81 80 83 84 84 84 83 86 82 82 83 82 83 82 84 84 84 85 86 66 68 67 65 65 65 65 65 64 64 67 67 66 68 69 69 68 69 68 64 67 67 69 67 70 67 68 67

80.7 67.0

PAHALA 21

UPOLU POINT USCG 159.2

C+ #																Day	Of M	onth															- E
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
ISLANO OF KAUAI																																	
LIHUE W8 AIRPORT	EVAP WIND MAX MIN			.30 179 84 66	131	135 87	163 83	151 86	125 87	106	198	269 80		.25 190 85 65	.26 51 86 66	84	.29 91 86 62	61 83	67 86	85	72 82	87	59 92	70 92	58 93	75 93	95	60 93	45 93	76 82			8.07 3204 86.3 64.4
* * * I5LANO OF OAHU																																	
HONOLULU 085ERV 702.2	EVAP WINO MAX MIN	•25 45 92 68	85	30	40 85	43	58 86	.27 43 90 65	42 88	39 87	33 86	43 82	21 88	.20 18 90 65	.20 19 89 66		•20 28 92 65	30	.27 23 94 63	21 94	21	. 26 22 95 65	24 95	24 97	24 93	19 79	18 89	.20 30 90 68	33	31 90	34 88		6.40 907 89.8 65.3
SLANO OF HAWAII																																	
HILO W8 AIRPORT	EVAP WIND MAX MIN	.10 75 79 65	66 82	51 78	48 80	44	.08 45 78 64	.12 65 82 65		98 82	69 81		61 88	.25 63 90 63	.17 67 90 66	.22 66 88 64	.20 58 89 64	.09 38 80 69	.09 53 85 64	90		.14 64 86 66	64 82	.12 64 88 67	57 81	83	74 87	.26 91 88 64	.22 78 90 67	63 77	.10 53 82 68		5.33 2011 83.7 64.6

	NO.	NOI		CE 1	UDE	TUDE	NOL	T	SERV IME TABI		V			NO.	NO		GE 1	JDE	UDE	NOL		SERV IME TABI	AND		APRIL 1967
STATION	INDEX	DIVISION	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	PRECIP.	SPECIAL	data nortai	OBSERVER	STATION	INDEX NO	DIVIS	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.			SPECIAL an worth	OBSERVER
AST LAWAI 934 A KW 3 RE5ERVOIR 1094-1 LEELE 927 A	0456 0465 0470 0935 1038	02 9	KOLOA KAWAIMAU	2 2 1 2 1 2 1	21 57 22 09 21 56 21 55 22 06 21 54 22 07 21 58 22 05 21 59	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28 159 41	1610 116 720 641 350 163 253 490 1218 600		7A 7A 7A 6A 7A 8A	c	MC MC L11 MC	BRYDE SUGAR CO. HUE PLANTATION CO. 88YOE SUG CO LTO. 88YOE SUG CO LTO. BRYDE SUG CO LTO. HUE PLANTATION BRYDE SUG CO LTO. HUE PLIN CO LTO. KAMA SUGAR CO LTO.	MAHANA 694 A MALAUEA 676 A	5286 5301 5704 6012	01 L 01 L	AHAINA AHAINA AHAINA AHAINA AHAINA AHAINA AMAINA	. 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	157 00 157 00 156 55 156 53 156 55 156 55 156 52	1640 30 1620 3370 1430 1135 2040		WI BA 7A WI MO WI	K K K		DOLE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY
ANALOHULUMULU 1075 ANEHA RESERVOIR 1092 A APAA STABLES 1104 A FALIA 1112 A	2222 2227 2974 3099 3104 3159 3982 4272 4561	02 to 01 to	LIHUE HANALEI HANALEI WAIHEA KAWAIHOU KAWAIHAU KAWAIHAU WAIMEA MANALEI	1 3 1	22 02 22 09 22 11 22 08 22 08 22 05 22 06 21 58 22 13 22 11	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25	1070 690 400 3600 800 175 9	θА	7A WI 7A 8A 7A 7A 8A 6A 7A	× × × ×	S MC K1 KA L1 L1 L1 KE	HUE PLIN CO LTO ERYDE SUG CO LTO LAURA SUG PLIN CO MALOHULUHULU R, 5. HUE PLANTATION HUE PLIN CO LTO HUE PLIN CO LTO LAURA SUG PLIN CO LAURA SUG PLIN CO LAURA SUG PLIN CO LAURA SUG PLIN CO	HAELAAU 477 A HALEAKALA B E S 434 A MALEAKALA RANCM 432 A MALEAKALA RS 338 MALEAKALA SUMMIT 338.4 HALEHAKU 492.2 MALIJMAILE 423	0790 0995 0999 1004 1008 1016 1075	04 L 01 M 02 M 02 M 02 M 02 M	iana Amaina Iakamao Iakamao Iakamao Iakamao Iakamao Iakamao Iakamao	1 1 2 2 1 1 1	20 37 20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 52 20 55	156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8 A 8 A	7A 6A 8A 8A 5A	C KK	S	ULUPALATUA RANCH MAUI PINEAPPLE COM- MAUI PINEAPPLE COMPANY U OF HAWAII EART STA HALEAKALA RANCH CO HALEAKALA NAT PARK U OF MICH MT HKALA 085Y PHIL SCOIT MAUI PINEAPPLE CO- HAWAIIAN COM + SUG CO
.1LAUEA POINT 1133 .1TANO 1037.1 .0LO 1033 .0LOA 936 A .0LOA MAUKA 994 A .0LOKO RES 1137 A .UKUIULA 935 A .IMUE VARIETY STA .IMUE VARIETY STA	4568 4650 4735 4742 4750 4758 4950	01 F 03 6 02 7 02 7 01 F 02 8 02 1 02 1	HANALEI WAIMEA WAIMEA KOLOA KOLOA KAWAIMAU KOLOA LIMUE LIMUE	1 3 3 2 2 1 2 2	22 14 22 02 22 04 21 55 21 58 22 11	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23 159 22 159 21	180 2150 36 240 640 737 104 375 207 103	8A M10	7A 8A 7A 7A 6A 7A 7A M10	c ċ	KEI KEI GRI GRI KII MC HA!	S COAST GUARD KEMA SUGAR CO. KAMA SUGAR CO. KAMA SUGAR CO. LTD OVE FARM CO. LTD OVE FARM CO. LTD OVE FARM CO. LTD OVE FARM CO. LTD OVE SUG CO. LTD WAITAM SUGAR PL. ASSN MUE PLIN CO. LTO S WEATMER BUREAU	MANA AIRPORT HANAHULI 2811 HOLUA CASIN 259.5 MONOKOHAU 480 MONOKOHUA 493 MONOLUA FLO 49 494 MONOHANU GULCH 341 IAO NEEDLE 387.2	1882 1887 1914 1935 2208	01 H 02 H 04 L 04 L 04 L		1 1 2 4 4 4 1 3	20 41 20 45 20 58 21 00 21 01 20 47 20 53	155 59 156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 38	120 61 325 6930 870 135 125 6280 1100 2000	114	8A 11A 7A MO MO 6A MO	c	S	HARRY HASEGAWA HAWAIIAN AIRLINES KOALI RANCH HALEAKALA NATI PARR RGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO HALEAKALA RANCH CO SIATE OILYISON OF PARAS RIONEER MILL CO LTD
IAKAHUENA POINT HAKAWELI 965 A HANA 1426 H + M 1001 HOHIHI UPR CROSS 1083	5785 5864 6082 6097 6433 6529 6565 6850 6888	02 03 02 01 02 02 03 02 03 02 03 03 03 03 03 03 03 03 03 03 03 03 03	KOLOA WAIMEA WAIMEA KAWAIMAU WAIMEA WAIMEA WAIMEA LIHUE	3 3 2 3	21 52	159 27 159 38 159 46 159 28 159 36 159 30 159 30 159 44 159 28 159 26	52 140 11 300 3500 330 5075 1250 1110 650	8A 9A	8A 7A 9A MEO 7A 6A 7A	c	U OLI KEI GRI	5 COAST GUARO OKELE SUGAR CO OKELE SUGAR CO OVE FARM COUPANY 5 GEO SURVEY HUE PLANTAIION CO. S. GEO, SURVEY KAMA SUGAR CO LTO HUE PLIN CO LTO HUE PLIN CO LTO HUE PLIN CO LTO	KAILUI 436 KAILUA 446 KAUAULA IMTAKE 375 KAUPOR RANCH MOUSE 259 KEAHUA 410 KEANAE 346	2630 2679 3433 3576 3910 4091 4193 4489 4634	01 M 04 L 02 H 03 M 01 M 02 H 03 W	MAKAWAO MANA MAKAWAO MAILUKU MANA	1 1 2 3 1 2 3 1	20 53 20 39 20 52 20 50 20 42 20 47 20 39	156 26 156 16 156 13 156 38 156 08 156 23 156 10 156 27 156 27 156 04	2520 700 1585 1020 480 980 20 90 260	7A	MO	c		U.S. WEATHER BUREAU E MAUI IR CO. LTO E MAUI IRR CO. LTO FIGNER MILL CU LTO KAURO RANCM HAWAIIAN COM + SUG CO E MAUI IRR CO. LTO A. L. CORELL HAWAIIAN COM + SUG CO KIPAMULU CATTLE COMPANY
M WAINIHA 1115 RINCEVILLE RANCH 1117 UEMU RIOGE 1040 UMI 1013 A IESERVOIR 6 1004 A TABLE CAMP 1055+1 AMHIAWA 930 A	8155 8165 8205 8217 8573 8694 8941 8949	01 P 01 P 03 P 02 P 02 P 02 P 02 P	HANALE I HANALE I WAIMEA LIHUE LIHUE LIMUE KOLOA	1 1 3 2 2 2 2 2	22 12 22 13 22 01 21 58 21 57 22 04 21 54	150 36	101 295 1660 329 420 740 215 2100 565 780	6A	7A 7A 8A 8A 7A MO 6A 8A	nn nn	MC PR KEI GRI GRI HC HC	BRYDE SUG CC LTO INCEVILLE RANCH KAMA SUGAR CO LTO OWE FARM CO LTO OWE FARM CO LTO OWE FARM CO LTO BRYDE SUG CC LTO BRYDE SUG CC LTO MUE PLIN CO LTO MUE PLIN CO LTO MUE PLIN CO LTO MUE PLIN CO LTO	KULA MEIGHTS 323.2 KULA SANATORIUM 267 LAMAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372A LUPI UPPER 442 MAHINAHINA 466 AMALUHIA 482.2 MOKUPEA 475	5003 5006 5177 5404 5408 5665 5715 6042 6521	02 P 04 L 04 L 01 P 04 L 03 V 04 L	OAWANAN ANIAHA UXUU ANIAHA	2 4 4 1 4 4 4	20 54 20 47 20 42 20 53 20 51 20 51 20 53 20 57 20 57 20 59	156 35 156 19 156 22 156 41 156 37 156 39 156 15 156 40 156 32 156 37	5788 2520 3004 45 1280 220 1240 715 1040	7A 7A		c		MAUL PINEARPLE CO KENNETH MILLEY EULA SANATORIUM PIONEER MILL CU LTO PIONEER MILL CU LTO PIONEER MILL CU LTO E MAUL IRR CO LTO PIONEER MILL CO LTO 8 S OF A COUNCIL MAUL PINEAPPLE CO
ALAWA 943 HALLUA KAI 1065 A	9253	03 k	WAIMEA LIMUE WAIMEA	3	21 59	159 43 159 21 159 41 159 31	10 50 20 210		8 A 7 A 8 A 6 A		KE	KAMA SUGAR CO LTO HUE RLANTATION (IMEA 5UG MILL CO : BRYOE SUG CO LTO	OLINOA 332 A OLOWALU 296 OLOWALU GULCH 377 A PAAKEA 350 PAIA 406 RANILEIHULU 259,2	7040 7059 7066 7194 7566	01 F 04 L 01 F	AILUKU	1 4 4 1	21 02 20 48 20 49 20 51 20 49 20 55 20 41	156 36 156 17 156 38 156 36 156 07 156 23 156 08	340 4127 7 800 1260 170 3570		W1 VAR 7R HO 6A 6A	c		MAUI PINEAPPLE COMPANY MAUI CO WATER OEPT PIONEER MILL CO. PIONEEP MILL CO LTD E MAUI IRR CO LTD HAWAIIAN COM + SUG CO KAUPO RANCH CO.
LIEA FIELO 625 761 A LERETANIA PUMPING STA AMP 84 C P C 807 OA LOCONUT ISLANO 840-1 ONSETT HIGMLANOS 780. WA PLANTATION 741 ALAWA SHAFT 771-2	0300 0350 0438	02 P 03 E 01 P 02 P 03 E 02 P	MONOLULU EWA KOOLAUPOKO HONOLULU EWA HONOLULU WAIALUA	3 2 3 1 2 3 2 5 3 3	21 25 21 19 21 25 21 26 21 21 21 21 21 21 21 23 21 33 21 24 21 19	157 57 157 51 158 04 157 47 157 50 158 02 157 54 158 00 158 06 158 00	455 20 680 13 565 42 170 1274 2220		7A 9A 6A 8A 7A WI VAR 9A	E LE K	BO CA U - EW BO WA He	NAMOLE WIR CO LTO NAMO OF WIR SUPPLY LIFTORNIA PKG CORP OF H HARINE LA3 L. BANNING LAP LANTATION CO NAMO OF WATER SUPPLY NALUA AGR CO LTO V. VON HOLT	PAUMELA 49J POMAKEA BRIOGE 307.2 POLIPOLI SPRING5 267.2A PUOHOKAMOA 2 343 A PUU KUKUI MAKAI 472 A PUUNEMA 396 PUU PAKI 352 SPRECKELSVILLE 4JU.2 IWIN GATES 261.3 A KUKULEL 331	8060 8070 8336 8444 8543 8553 8688 8742 8744	03 9 02 P 04 L 03 9 01 P 03 P 03 P	HANA LAHAINA KAILUKU	3 4 3 3 3 3	20 41 20 55 20 49 20 41 20 50 20 55 20 53 20 46 20 48 20 48 20 48	156 19 156 31 156 20 156 13 156 38 156 27 156 03 156 25 156 23 156 15 156 35	485 167 6150 2980 2500 60 2160 2160 5230		MO MO TA BA VAR HO TA		5	HASEROT PINCAPPLE CO- WAILUKU SUGAR CO STATE OIV OF FORESTRY E MAUI IRR CO LTO HONER MILL CO LTO HAWAIIAN CORV SUG CO CAMAIIAN CON SUG CO CAMAIIAN CON SUG CO ACONDULU BANCH HALEANALA RANCH CO PIONEER MILL CO LTO ULUPALANA RCH CO LTO
IONOLULU WBAP 703 IONOLULU SUBSTA 704 IS PA EXP STA 707 IAALAKE1 724.6 AMMAN 889 A AMHXU 912 ALIUM FIRE STA 791.3 ALIMI RES SITE 777 AMEDAME 724.7 ANEOME MAUKA 781	1924 2146 2269 2462 2570 2683 2960 3056	02 02 02 01 01 01 02 02 01 00 01 00 00 00 00 00 00 00 00 00 00	HONOLULU HONOLULU HONOLULU HONOLULU KOOLAULOA KOOLAULOA KOOLAULOA KOOLAUPOKO HONOLULU KOOLAUPOKO	2 2 1 1 2 1 1 1 1	21 18 21 31 21 41 21 24 21 23 21 19 21 25	157 49	12 50 10 800 25 10 910 1380 225	MID MID 8A	WI 8A 8A 410	0 00 0	ES H MR WA KA KA BJ HA	S WEATHER BUREAU SEA-WEATHER BUREAU S P A EXR STATION SS. WILLIE ZAPATA HANDLE WIR CO LTO HUKUN PLIN CO HUMN PLIN CO HUMN FIANTON HUMA FIRE STATION HAND OF WIR SUPPLY WANTI NATIONAL SUARO ATE HOSPITAL	ULUPALAKUA RANCH 250 MAHIKULI 364 M MAIEHU CAMP 484 MAIHEE VALLEY 482 MAIKAMOI 0AM 336 MAIKAMOI 0AM 336 MAIKAMOI 379 MAILUA IXI 348 MAILUA 372	8760 8955 9275 9315 9332 9335 9376 9460	02 P 04 L 03 P 04 P 01 P 01 P 03 P	HAKAWAO LAHAINA WAILUKU WAILUKU HANA WAILUKU HANA WAILUKU HANA WAILUKU	3 4 1 1 3 1	20 39 20 54 20 55 20 57 20 52 20 49 20 52 20 48	156 24 156 40 156 31 156 32 156 12 156 14	1700 580 320 300 1200 4320 470 2630 200 220		6A 6A WM VAR 6A			ULUPALAKUA RCH CO LTO PIONEER MILL CC LTD  WAILUNU SUGAP CO WAILUNU SUGAP CO WAILUNU SUGAP CO WAULO COUNTY ATE DEPL WAILUN SUGAP CO EAST MAUL IMPRIGATION CU ST. ANTHONYS 8075 SCH MALEAKALA RANCH CO
APAKA MAKAI 905-1 APALAMA 773 A AMAIMAPAI 841 A AMAI IKI INTAKE 880-2A AMELA MAUKA 906-3 EMMOO CAMP 8 855 A OOQLAU 0AM 833 ALE 903 A	3220 3268 3734 3741 3825 4318 4766 5213 5647	01 02 05 05 05 05 05 05 05 05 05 05 05 05 05	KOOLAUPOKO WATALUA WAMTAWA KOOLAUPOKO WATANAE	1 2 5 1 5 1 4		157 47 157 54 157 52 158 11 157 59 158 00 158 05 157 58 157 56 158 08	365 10 614 20 1160 1050 725 1160 6		8A 7A W1 7A 8A 7A	c	GE KA WA MA WA C KA US	INCOME RANCH CO IORGE H. SWIFT INFERMENT SCHOOLS ILALUA AGR CO LTO F OFFICER MEOG HUKUN PLTN CO IN AMMUNITION DEP	ISLANO OF HAWAII  AHUA UH1 75 AVINI 182-1 EAST MONOKANE 1838 AHAINA 214 HAKALAU 142 HAKALAU 142 HALEMUHWAU 52 HALEPIULA 117 A	0190 0450 0840 0905 1033 1060	01 5 01 5 02 5 03 6 01 6	HAMAKUA	1 1 2 3 1 2	19 38 20 10 20 07 20 06 19 54 19 24 19 56 19 46 19 26	155 43 155 28 155 08 155 17 155 24 155 28	5220 1870 4240 461 105 3648 5770 9220 3971	7,4	MI MO 7A 7A MO MO MO 8A			SKEENWELL RANCH A, JHALA DITCH CO LTO A, OHALA DITCH CO LTO HONOKAA SUGAR CO REPETENE SUSAR CO- HAWAII NAT PARK KURAIAU RANCH CO STATE OIV. OF PARKS HAWAII NAT PARK
UNALUALEI WIR TUNNEL A UNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA WALLEY 800.1 MAKAPUU POINT 724 MANOA TUNNEL 2 716 MANOA TUNNEL 2 716 MANOA MANILI 787.1 MONALUA 770 MONALUA 770 MONAT KAALA 844	5675 5766 5781 5800 6122 6130 6222 6395 6553	02 1 04 1 02 1 02 1 02 1 01 02 1 04 1	MATANAE  MATANAE  MATANAE  MATANAE  MATANAE  MOOUUUU  MOOUUUU  MOOUUUU  MATANAE	2 2 2 1 2 4	21 19 21 19 21 20 21 21 21 21 21 31	158 08 157 42 158 13 158 12 157 39 157 49 157 48 157 46 157 54 158 09	1500 40 25 160 538 220 650 410 20 4025	ВА	W1 7A 7A 8A 8A 8A 8A 9A	4 4 4	CA CA U MR 80 EX JO	S NAVY  INALILO HOME  IPITAL INVEST CO  KITAL INVEST CO  S COAST GUARO  S COAST GUARO  S COAST GUARO  PP. STA. H.SAP.A.  HHN A ROXBURGH  DEPAL AVIATION AOM.  DARO OF WTR SUPPLY  SARO OF WTR SUPPLY	HILO WB AIRPORT R HOLUALOA 70 A HOLUALOA SEACH 68 A HONAUNAU 27 HONOKANE 181-1 A HONOKANE 181-1 A	1339 1492 1557 1562 1665 1701 1864 1960	02 : 04 : 04 : 04 : 01 : 02 :	S HILO N KONA N KONA S KONA N HILO N KOMALA S HILO N KOMA	1 2 4 4 2 1 2	20 14 19 43 19 38 19 37 19 27 19 56 20 09 19 51 19 40	155 50 155 50 155 55 155 59 155 53 155 09 155 44 155 53 155 53 155 53	600	1 41	7A	MIDG	J	NOMALA SUGAR CO  U S MEAIMER BUREAU STATE OIV OF FURESTRY VARIOUS RANCH HANOS MRS MALAE N HUA PEREEREE SUGAP COMPANY NOMALA OITCH CO LTO PEPEREXO SUGAR CO. STATE OIV OF FORESTRY STATE OIV OF FORESTRY
	6933 7150 7664 7810 7933 8126 8172 8310 8316	02 05 02 02 03 03 02 05 01	MATALUA HONOLULU EWA HONOLULU KOOLAULOA HONOLULU	2 2 3 2 5 1 2	21 21 21 25 21 17 21 28 21 35 21 19	157 49 157 50 158 02 157 46 157 49 157 58 157 43 158 01 157 54 157 51	1048 410 1060 995 1640 240 6 700 20 360	7A	HIO VAR 7A HID HIO 5P 8A 8A 8A		BO BO BO JA GE PI KA	JARO OF BIR SUPPLY JARO OF BIR SUPPLY JALUA AGR CO LTO JARO OF WIR SUPPLY JARO OF WIR SUP	KAALA IKI 12 KAAWALOA 29 KAHIAWAI 3.4 KAINALIU 738	2249 2327 2512 2751 3048 3077 3078	03 04 03 04 03 01 5 05 5 03 10 05 10	N KUNA KAU N KONA KAU S KOHALA S KOHALA	3 4 3 4 3 1 5	19 45 19 08 19 30 19 08 19 32 19 02 20 01 20 00 19 17	155 59 155 34 155 55 155 46 155 56 155 40 155 40 155 40 155 27	1960 1340 1340 3700 1500 1375 2670 2665 2140	7/5	7A 8A 7A WI	jo		HUEHUE RANCH HUTCHINSON SUGAR CO CARTAIN COOK CUFFEE CO. KARL EMBREY KOMA EXPERIMENT SIA HAWAIIAN PANCH CO PARRER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARO OF WAIER S.PPLY BOARO OF WAIER S.PPLY
FAIALAE KAMALA 715 FAIALUA 847 A FAIANAE 798 FAIANAE MAUKA 803 A	8730 8738 8815 8945 8964 9185 9195 9231 9238	02 1 02 1 05 1 01 02 1 05 0 04 1	KOOLAUPOKO HONOLULU HONOLULU WANIAWA KOOLAUPOKO HONOLULU WAIALUA WAIANAE WAIANAE	2 2 2 5 1 2 5 4 4	21 20 21 20 21 18 21 30 21 28 21 17 21 35 21 27 21 29	157 49 157 50 157 49 158 03 157 53 157 47 158 07 158 11 158 09	2000 1325 79 854 745 40 32 20 1575	74	7A 8A 7A 8A 7A 7A 8A W1	in man of	BO R. OE WA WA HA WA CA	NARO OF WATER SUPPLY :	KAUMANA 88.1  KABAINUI LOWER 193 AREANU 92  KEANU 92  KEANUA CAMP 22.1  KEALAKEKUA 26.2  KEANAKOLU CAMP 124.2  KEHENA 181.2  KEHENA RESERVOIR 176.1A	3770 3872 3925 3977 4098 4245 4250	01 02 03 04 5 02 01 01 01 01 01 01 01 01 01 01 01 01 01	KAU S KONA HAMAKUA N KOHALA N KOHALA	1 2 3 4 2 1 1 3	20 05 19 38 19 14 19 30 19 55 20 07 20 10 19 04	155 29 155 55 155 21 155 45 155 48 155 38	1123 1080 280 1700 1450 5280 3840 2520 1925	8/00 8/00 8/00 8/00 8/00 8/00 8/00 8/00				SMIGEO MASUYA HONORAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI, COMPANY MISS ANY GREENWELL STATE DIV. OF FORESTRY KUMALA DITCH CO LTD STATE DIV OF FORESTRY MANIA REA SUGAR CO.
MAIKANE 885 MAIKIKI 717.2 MAILUPE RESERVOIR 170 A MAILUPE VLY SCH 723.6 MAIMANALO 794 MAIMEA 892	9397 9495 9500 9521 9593 9738	01 02 02 02 01 05 03	KOOLAUPOKO HONOLULU HONOLULU HONOLULU KOOLAUPOKO WAIALUA	2 2 1 5 3	21 28 21 30 21 16 21 18 21 18 21 21 21 21 21 38 21 23 21 18	157 56 157 53 157 49 157 45 157 45 157 44 158 04 158 01 157 47	800 760 10 170 180 60 420 59	8.4	W1 W1 8A W1 8A 7A 8A H10		WA HO BO WA ST WA OA	I ANDLE WIR CO LTO I ANDLE WIR CO LTO INCLULU ZOO INCLULU ZOO INCLULU ZOO INCLULEY SCHOOL I DIW WIR + LAND OEV I ALUA AGR CO LTO INDU SUGAR CO INDU INDU INDU INDU INDU INDU INDU INDU	KOHALA HAULILI 176 A	4675 4680 4685 4764 4815 4928 4938 5011	01 8 01 8 01 8 01 8 01 8 01 8	S MILO N KOHALA N KOHALA N KOHALA N KOHALA N KONA HAMAKUA HAMAKUA HAMAKUA HAMAKUA HAMAKUA HAMAKUA N KONA HAMAKUA HAMAKUA N KONA	1 1 1 1 1 1 1 1 2	20 13 20 14 20 05 19 39 20 02 20 07 20 08 19 33	155 09 155 47 155 48 155 38 156 01 155 21 155 35 155 34 155 18 155 27	309 960 531 720 15 840 980 300 5170 8300	9 84 65 84 65 65 64 65 65 64 65 65 64 65 65 65 65 65 65 65 65 65 65 65 65 65	7A 8A WI 8A 6A 6A 6A 8A WI			ROMALA SUGAR CO RUMALA SUGAR CU K. LYMAN BOND HONOKAA SUGAR CO HAWAIJAN AIRLINES HANARUA MILL CU HONOKAA SUGAR CO ST OEPT OF SOCIAL SER U S MEATHER BUREAU
KALAUPAPA 563 KAMALO MAUKA 542.6 KAUNAKAKA1 536 A	3046 3541 3547 4394 4778 6138 6190 6534 8549	01 01 01 01 01 01 01 01	MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI MOLOKAI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 04 21 06 21 06 21 12 21 09 21 04 21 08 21 09	156 59 156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06 156 44	30 60 12 70 560 878 20 1075 450 700	ВА	8A 6A WK 7A 8A 9A 8A 6A	u u u u u u	MO MO HO CA H L1 AL	ALAUPAPA SETTLEMENT  J. CARSTEN  J. CARSTE	KULANI SCHOOL SITE 78 A  LALAMILO FLO OFF 191-1 LANIHAU 68 C LAVA TREE PARK 66-1 MANUKA 2 MAUNA LOA SLOPE OBS HIOOLE HOLUALOA 68-1 HIOOLE PEN 147-1 MOAULA 18 MONINTAIN VIFW 91	5021 5260 5330 5460 6134 6198	02 1 04 1 02 1 03 0 05 0 04 1 03 0 02 1	S HILO S KOHALA N KONA PUNA KAU HAMAKUA N KONA N KOHALA KAU PUNA	1 4 2 3 5 4 1 3	20 01 19 40 19 29 19 07 19 32 19 37 20 06 19 11 19 33	154 54	5735 2615 1530 650 1760 11146 475 1380 600 1530 673	5 5 5 6 6 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	BA BA BA HIO BA VAR MC	45 - 48		ST DEPT OF SOCIAL SER STATE DEPT OF + N RES STATE DEPT OF + N RES STATE DEPT OF TAILO STATE OIVISION OF PARE. U S WEATHER BUREAU KOMA EXPERIMENT STA KAHUA RANGO HAMAIJAN RANGO HUTCHINSON SUGAR CO

CONTINUED	NO.	NOIS		AGE 1	TTTUDE	LONGITUDE	ATION	T			OBSERVER	STATION	X NO.	DIVISION	DISTRICT	AGE ‡	TITUDE	LONGITUDE	ATION		TABL	ES	OBSERVER
STATION	INDEX	DIVISION	DISTRICT	DRAINAGE	LATE	LONG	ELEVA	TEMP.	PRECIP	SPECIAL	OBSERVER	31111011	INDEX	DIVI		DRAINA	LAT	LONG	ELEV	TEMP.	PRECIP.	SPECIAL ILE WOTE	
	A 7643 7712 7120 7120 7312 7421 7457 A 7643 7711 A 7721 8000 8051 A 8063 8186 A 8383 A 8383	02 01 02 04 02 01 03 02 02 02 02 02 02 05 01	PUNA	212421132 322222311	19 19 20 14 20 01 19 16 19 34 20 05 20 03 19 12 19 47 19 47 19 51 19 49 20 02 20 02 19 54 19 59 20 02 19 54	155 00 155 26 155 22 155 29 154 57 155 28 155 06 155 08 155 05	395 1400 75 430 1270 445 800 870 670 200 1270 100 6511 7750 7450	7.A 7.A 8.A	7A VAR 6A 7A 7A 7A 6A 6A MO VAR 6A MO WAR 6A MO MO MO	c	KONA EXPERIMENT STA MONAL VOCAMONES MAT PA MONAL VOCAMONES MAT PA MONAL VOCAMONES MAT PA MISS C LEONAGE SUGAR CO MISS C LEONAGE SUGAR CO MISS C LEONAGE SUGAR CO MANANCA MILL MILL MILL MILL MILL MILL MILL MILL	PUU MALI 113 PUUOKUMAU 167 PUU OO 82 PUU WAAWAA 94.1 SADDLE ROAG 1 84	8515 8548 8550 8555 8590 8675 8679 8780 8830	01 02 05 02 03 03 01 01		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15	155 49 155 26 155 50 155 53 156 51 155 12 155 41 155 41 155 23 155 53 155 08	4850 6960 1800 6346 2520 2340 400 303 3420 11050 3830	84	MO 7A 6A 7A WI 7A 8A	V. V. V.	GREENVELL RANCH CO KURALAU RANCH CO KURALAU RANCH CO LTO W. H. SHIPMANN LTO GOOD CONTROL OF THE SUPPLY HUTCHISSON SUGAR CO PEGRAL ELECTRIC CORP CURALAU RANCH SUBJECT CORP CURALAU RANCH C

DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN
5-NORTH-CENTRAL MOLOKAI: 1-NO INTRA-ISLAND DIVISIONS) LANAI: 1-NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN
2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. O. Box 3650, Bonolulu, Hamaii, or to any Meather Bureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWAII"

DIMENSIONAL UNITS: Galess otherwise indicated, dimensional units used in this bulletin are: Temperature in "F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees. Resultant wind is the vector sum of wind directions and speed divided by the number of observations

OBSERVATION TIME: Data in the "Wonthly Extremee"; "Daily Precipitation" table; "Daily Temperature" table; and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station Index. The Station Index shows observation time in local

EVAPORATION is measured in the etandard Weather Eureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" Table. Max and Min in "Evaporation and Wind" table refer to extremes of temperatures of water in pan as recorded during 24-hours ending at time of observations.

NORMALS for all stations are climatological etandard normals based on the period 1931-1960

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING - No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "SnowTall and Snow on Ground" table, and the Station Index.

No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.

- + And also on an earlier date or dates
- ++ Eighest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data.
- a Amount included in foliowing measurement, time distribution unknown.
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table; and "Station Index"; indicates amount carried in the "Total" column is for the period from last measurement of a proceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- B. Adjusted to a full month
- J "Supplemental Data" tabie
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage
- T Trace, an amount too emall to measure.
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after ralm.
- C in Special Column of Station Index indicates Recording Raim Gage Station. Hourly precipitation values are processed for special purposes, at published later in the "Bourly Precipitation Data" bulletin. If daily amounts are published in "Climatological Data" bulletin they are from exparate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage the "Bourly Precipitation Data" bulletin.
- MO Gage read once monthly; usually on the last day.
- OC Gage readings at periods varying from a few aceks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset.
- VAR Observation time is variable WI Gage read weekly or irregularly only
- WW Gage read weekly and last day of month
- # Thermometers are generally exposed in a shelter located a faw feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a skelter located on the roof of a building.

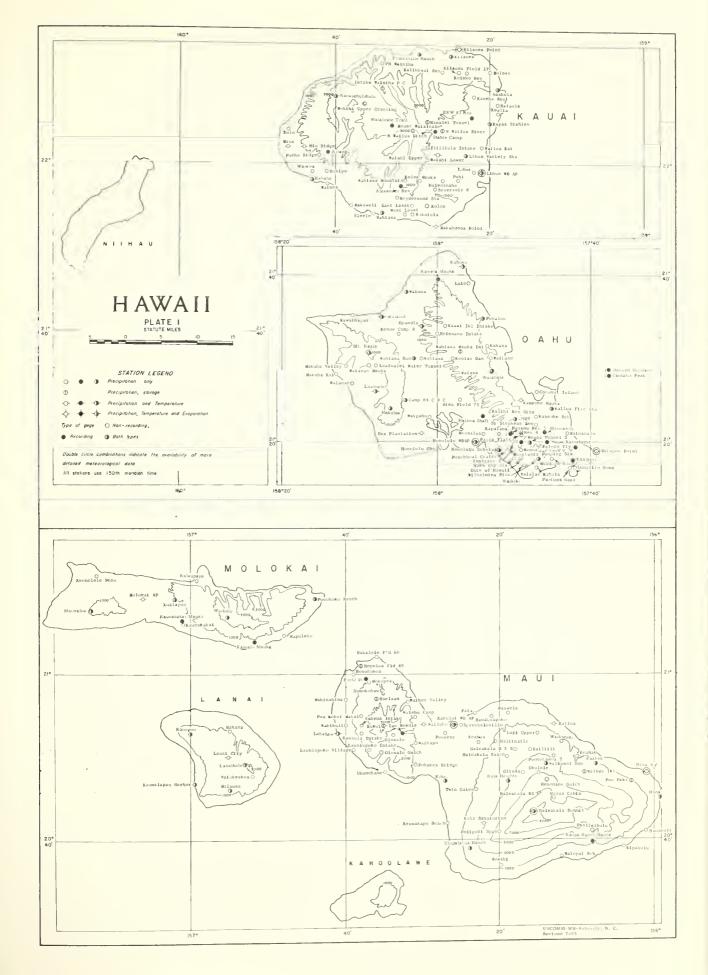
Stations appearing in the Index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue

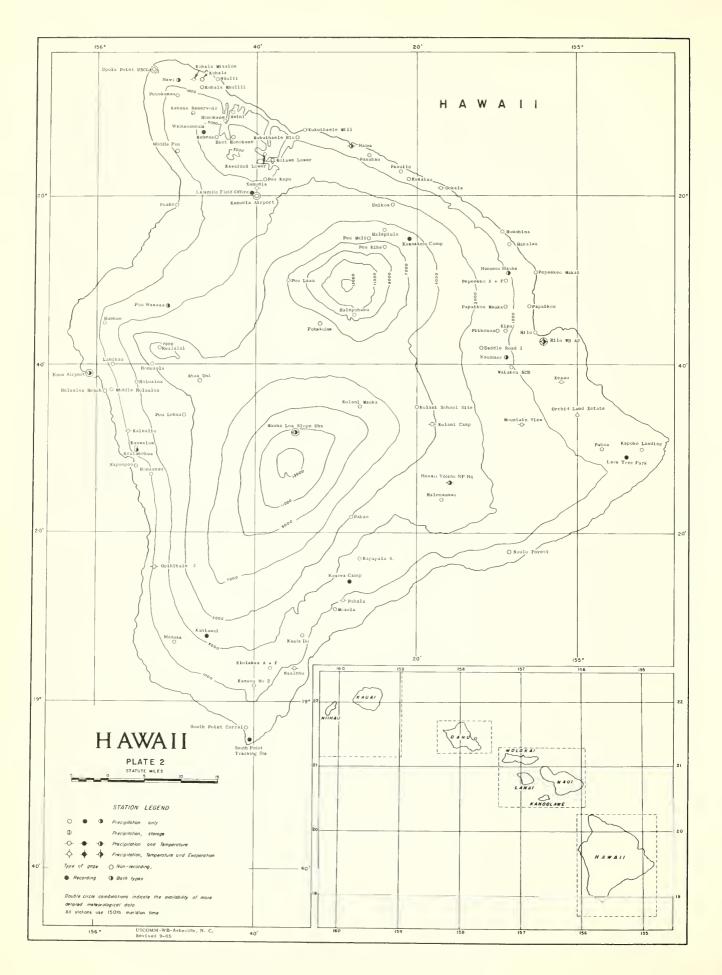
General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, MONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, and of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information-concerning the bietory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Bistory" for this State, price 40 cents. Similar information for regular Meather Bureau stations may be found in the latest annual lessue of Local Citatological Data, price 165 cents. These publications may be obtained from the Superintendent of Documents at the address shown above.

Subscription Prico: 20 costs par copy, mosthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and mone orders abould be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Mashington, D. C. 2402.

USCOMM-ESSA-ASHEVILLE--B/2/67-625











CLIMATOLOGICAL DATA

U. S. DEPARTMENT OF COMMERCE
ALEXANDER B TROWBRIDGE Secretory

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE

AUG

MAY 1967

Volume 63 No. 5

HAWAII

CLIMATOLOGICAL DATA

					Tom	perat								TECH	. &	AG	oitellon	_				
	Ī				lem	perar				 N	o. of [	oys			-	Frecis		w, Sleet		No	p. of [	Doys
Station		Average	Averoge Minimum	Average	Deporture From Normol	Highest	Dote	Lowest	Dote	Mo or	х.	Min.	Totol	Deporture From Normoi	Greotest Doy	Dote	Totol	Max. Depth on Ground	Dote	or Mare	.50 or More	1.00 or More
# # # ISLAND OF KAUAI																	-					
ANAHDLA 1111 KANALDHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELD 17 1135 KILAUEA PDINT 1133	A A A	70.5	54.0 71.2	62.3		74 88	18+	47 68	7	0	0	0	8.35 6.51 9.46 12.92 7.92		2.10		.0 .0 .0	0		11	5	1 4
KOLDA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	81.4 85.8	70.2 67.1	75.8 76.5	1.3		17 16	65 63	17• 27•	0	0	0	6.04 4.05 1.27 V67.38 15.07	.37	.89 .54 4.62	18	.0 .0 .0	0		6 4	1 8	0 0 3
PUEHU RIDGE 1040 Wahiawa 930 Waiahi Lower 1054 Waimea 947	A	79.6	63.2	71.4		85	16+	60	14+	0	0	0	5.49 3.05 17.15 2.16		2 • 20 4 • 34 1 • 03	30	.0 .0	0		9 18 5	9 2	2 5 1
ISLANO				72.5									7.65				•0					
# # # ISLAND DF OAHU																						
HONDLULU DBSERV 702.2 HDNDLULU WBAP 703 KAHUKU 912 KANEDHE MAUKA 781 KDDLAU QAM 833	R	85.0 82.3M 81.0	71.3 69.3M 70.2	78.2 75.8M 75.6	2.3 .9 1.4	88 87 85		68 65 68		0 0	0	0 0 0	1.17 2.12 V 8.89 10.65 9.46	1.13	1.00 1.07 3.14 1.50	18	, ( , ( , (			2 3 13 18	1 6 7	1 1 4 3
LUALUALE1 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALDLD VALLEY 718		80.0 80.6	71.9	76.0 73.0	3 • 2		14	68		0	0	0	2.60 1.62 7.70 3.91 11.14	- 2·13 - 63	2.40	20	• (			5 4 15	3 1 4	1 0 2 5
PRI WAHIAWA 820-2 PUNALUU 884 WAHIAWA OAM 863 WAIAHOLE 837 WAIAHOLB 847	A A	83.9M	64.4M	74.2M	1.6		31+	59 59	18+	0	0	0	3.92 V16.98 4.63 15.74 1.07	3.59	2.50 1.58		• (		וֹכ	2	3	0 1 0
WAIKIKI 717+2 WAIPAHU 750	A	87.0	70.3	78.7		91	13	66	8	3	0	0	2.31	.85	1.31	19				4.	1	0
ISLANO		,		75.8									5,34									
# # # ISLAND DF MDLDKAI																						
KUALAPUU 534 MAPULEHU 542 MAUNALDA 511 MDLDKAI AP 524	A	81.7	69.8	75.8		86	23	67	8	0	0	0	4 • 8 2 3 • 10 5 • 3 8 5 • 7 4	.39 3.91		17	.(			5	3	0 2
ISLAND				75.8									4.76					1				
* * * ISLAND OF LANAI																						
ISLANO		77.5	64.8	71.2	2.1	81	28	61	3	0	0	0	8.74	}	2 • 3	18				12	6	3
* * * ISLAND OF MAUI																						
HALEAKALA B E S 434 HALEAKALA RS 338 HANA AIRPORT HONOKOHUA 493 KAHULUI WB AP	A A R	62.6 83.7h	68.2	76.7	1.0	91	18	66	94	0 0	0	0 0	1.64 3.66 3.3 2.09	1 1.05 5 1.36	1.0				0	2	3	1 1
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATDRIUM 267 LAHAINA 361	A	71.5 87.1	58.2 66.1	73.9 64.9 76.6	1.4		3 15 5 30 4 9 21 4		244	0	0	0	9.99 7.00 2.89 2.69	-11.20 85 .75 2.30	2.4		•		0	14 6 4	3 1	2 0 1
PAIA 406 Wailuku 392 Islano		84.7	67.3	76.0	1.0	5 91	16	64	94	1	0	0	3.1	9 1.93		3 20	•	9	0	40	2	2
													Station Indo									

### CLIMATOLOGICAL DATA

HAWAII MAY

1967

CONTINUED

CONTINUED										 												
					Tem	pera	lure									Precip	pitation					
										No	o. of I	Days					Sno	w, Sleet		N	o. of [	Jays
Station		Average Maximum	Average Minimum	Averoge	Deporture From Normal	Highest	Dote	Lowest	Date	Above OW	+	Min.	Total	Deporture From Normal	Greatest Day	Date	Total	Mox. Depth on Ground	Date	.10 or More	.50 or More	1.00 or More
* * * ISLANO OF HAWAII											1			·								
HAINA 214 HAWAII VOLCNS NP HO 54 HILO WB AIRPORT R HUEHNE 92A A KAINALIU 73B		82.5 69.8 84.6 78.8	64.8 53.7 69.5	73.7 61.8 77.1 70.7	2.3 1.2 4.1	87 79 91	22 18			0 0 1	0 0 0	0	2.97 6.97 9.84 6.07 6.26	- 1.95 .90 .51 1.40 - 1.44	.84 1.72 2.69	12	.0 .0 .0	0		7 12 12	3 4 6	0 2 3
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26°2 KEHENA RESERVOIR 176°1 A KONA AIRPORT 68°3		74.1 83.6 79.8M	58.9 65.5 64.1M	66.5 74.6 72.0M	2.1	78 88 83	19 29+	63 61	23 25 26+	0 0	0	0	2.56 11.55 5.36 3.49 3.07	1.67	.96 2.72 .99	12 24	.0 .0 .0	0		6 15 12	2 5 4	0 4 0
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH		64.5	47.5	56.0		74	22	40	6	0	0	0	2.60 8.47	- 4.11	•66 2•18		•0			7	2	0 3
PAHALA 21 POHAKULOA 107 A	,	80.0	63.3	71.7	•7	87	28	60	25+	0	0	0	5.97 2.66	3,65	3.91 1.15		.0			7	2	1
PUAKO 95A PUU WAAWAA 94•1 UMIKOA 118 WAIAKEA SCO 88•2													1.02 3.95 V11.35 13.41	1.22	.46 .67 2.38	9	.0 .0	0		11	0	0
ISLANO				70.1									5.66				.0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 91° ON 18+ AT 3 STATIONS

LOWEST TEMPERATURE: 31° ON 29+ AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 32.79 INCHES AT ILIILIULA INTAKE 1050,
KAUAI
LEAST TOTAL PRECIPITATION: .04 INCH AT SOUTH POINT CORRAL 3, HAWAII

GREATEST ONE-DAY PRECIPITATION: 9.35 INCHES ON THE 15TH AT PAPAIKOU MAUKA 140.1, HAWAII

#### HAWAII - MAY 1967

### SPECIAL WEATHER SUMMARY

The major weather event of the month was a rainstorm of near cloudburst proportions which occurred over the northeastern section of Kauai during the afternoon of the 21st and the morning of the 22d.

The bulk of the rain in the Kapaa area fell from about 11:30 a.m. to 1:00 p.m. on the 21st.

Damage from the rains was centralized in an area between Kawaihau Road and Hauaala Road and a portion of Kuhio Highway. The aerial extent of the heaviest rain was between Waipouli and Moloaa on the northeastern coast of Kauai.

Two cars were swept from Hauaala Road near Kapaa and the pavement was pealed off in places. Seven thousand dollars (\$7,000) damage was done to equipment stored on the ground floor of two buildings alongside the road.

Two other cars were swept from the Kuhio Highway but escaped serious damage.

The Hanalei River flooded at 1:30 a.m. on the 22d, and continued heavy rains in the mountains kept low-lying areas near the river under water for nearly 2 days.

Six cattle were drowned when the Kealia Stream overflowed into the pasture land.

The ocean turned brown along the east coast of Kauai as tons of mudwere deposited into the area.

At Anahola, 1.70 inches of rain fellin 30 minutes.

Locally heavy rains in the mountains near the Halawa Heights area of leeward Oahu caused the Halawa Stream to overflow on the afternoon of the 30th. The rapidly rising water resulted in one death, a girl who slipped into the stream and was carried away. A rain-caused rockslide covered Moanalua Road for over 2 hours.

A rain gage in the Halawa area recorded 1.60 inches of rain from 2:15 p.m. to 3:00 p.m. and 2.67 inches from 2:15 p.m. to 4:00 p.m.

Rainfall amounts for May varied widely over the island chain as well as for individual islands. Most stations reported rainfall near or above normal, excepting a large area north of Haleakala, Maui, and the northeast coast of Hawaii where amounts were well below normal. Rainfall at Haleakala Ranch, for example, was only about one-seventh of normal, while on the other hand, Waiopai Ranch on the south coast of Maui reported rainfall 16 times its May normal of 1.85 inches.

The mean May temperature of 77.1° at Hilo was 4.1° above the 14-year May mean, a new record. The mean May temperature exceeded the mean at Lihue, Kauai; Honolulu, Oahu; Kahului, Maui; and Hilo, Hawaii. At Lihue, Kauai, a maximum temperature of 88° on the 17th broke the record May maximum by 3°.

Russell Dorr Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

	T_	Ţ												Dave	of M	lonth														MAY		1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLANO OF KAUAI																																
ANAHOLA 1111 A BRYOESWOOD STA 985 A EAST LAWA1 934 A ELEELE 927 A HALAULA 1110 A		2 4 3	.04 .07 .25	.17 .23	.45 .09 T	T		:	•69 •48 •14	.14 T .01	.03 .12 .55	.02 .01 .02	.04 .05 .04			•25	.06	•30	•32 •20 •15 •25 •12	.26 .05 .01 .05 .40	*	7.81	6 • 17 • 53 2 • 80 1 • 17 • 23	1.40	•25 •15 •09	т	•02	•	* * * * * * * * * * * * * * * * * * * *	•32	•02	.09 . .11 . .21 .
HALENANAHO 1006 HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 KALIHIWAI RE5 1131 A	10.0 2.6 32.7 32.8 13.3	0 9 .10 8 .15	•34 •48 •46		•52 •	.03 1.00	*12	.05	•14 •58 •04	.33 .10 .06	.08 e	.10	.26 .30		•03	•52	•25 •07	.63 2.55	•18 •05 1•20 •59	.59 .02 .48 .56 1.53	* 4.00	12.32	4.30 .29 3.93 2.00 6.60	.70 .70 4.74	.02 .27	.08 4.00 .02	.06 .04	.20	* 40 *	.27 2 .60 6 1.35 .87		.18
KANALOMULUMULU 1075 KANEMA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 A KEKAMA 944	6.5 16.7 9.4 9.9 2.1	1 .18 6 .05 1 .06	•13 •18 •11	.15	.23 .33 .26 .10	•03	.04		•17 •10	.49 .15			.05			.30 .03 .15	2.10 .04 .02 .05 .16	.32	.72 .40 .50 .12	.67 .30 .48 .55	:	.32	.17 0.34 6.79 8.00	.99 1.35 .80 .24 .50	•10	•20	•09	.05 *	:	•57 •05 •07	.13 .15	.27 . 1.20 .
X1LAUEA 1134 A X1LAUEA F1ELO 17 1135 A K1LAUEA POINT 1133 KOLO 1033 KOLOA 936 A	11.6 12.9 7.9 2.1 6.0	2 .25 2 .06	.28 .46 .34	.40	•50 •50	.02 .03 .03	:		.08 .04	•17 •33 •03 •15	•02	.03 .01	.04 .12 .01	* 04	* * •04	.07 .66 .03			2 • 10 • 54 1 • 22 • 45 • 02	1.55 1.64 1.31 .21	* • 2 2	1.32	4.80 5.89 .25 .14 1.90	•28 •37 •30 1•30	•02 •02	.05 .05	.10 .09 .04	.14	* 10	•67 •92	.65	.04 * .03 * .02 * .21 *
KOLOA MAUKA 994 KOLOKO RES 1137 AUKUIULA 935 LIHUE VARIETY STA LIHUE 1020 A	11.8 14.3 1.8 7.3 4.1	1 .20 7 9 .03	.39 .36 .08	.15	.53 .15		:		•43 •04	•15 •69	.28 .47	.03	.05			•45	•01	.03 .10	•20 •05 •17	.11 1.18 .10	*	2.05	3.11 8.52 .70 1.64 2.15	.48	•02 •02 •01 •03	•08 •02	•37		.29	•33 •06	.44 .01	.45 . .16 . .02 . .45 .
LIHUE WB AIRPORT R MAKAHUENA POINT MAKAWELI 965 A MANA 1026 MONIHI UPR CROSS 1083	4.0 4.0 2.9 1.2	6	•33 •06 •01	.06 .13		T .		.01	•36	T •03	.06		т				.01	.32	.89 .22 .09	.34 .24 .02 .27	.87 .26 .88	.86 .80 .04	.50	.03 .66 .01	7	т.	.05		•11		.02 .10	1.10
MOLOAA 1145 A NIU RIOGE 1035 N WAILUA OITCH 1051 PH WAINIHA 1115 PRINCEVILLE RANCH 1117	10.0 3.5 V67.2 15.0	9 8 .20 7 .04	•11 •61 •73	1.13	.65 .64 .39				•22 1•33	.33 1.05 .27 .07	.21	•07	•16 •14	*	* • 02 • 29	.04 3.51 .25	.02	3.45	•23 •51 •11 •95	.89 .32 .61 1.95	* •73 2•07		6.30 .37 15.46 4.62 1.36	.84 .06 7.12 .51	.47 .05	•14 •15	.02 .06	* •28 •19	* •02 •07	T	.40 .52	.05 . .13 . .04 .
PUEHU RIOGE 1040 PUHI 1013 A RESERVOIR 6 1004 A WAHIAWA 930 A WAHIAWA MOUNTAIN 990 A	5.4 5.5 9.1 3.0 15.5	935.03	.46 .36	•16 •33	.01		:	:	•52 •09 •59 •11	.16 .02 .19	.05		.03				.49	.05 .33 .27	.18	.14 .56 .36	* * *	*		1.55 .52 .77 .63	•01	•01	.10	* *	*		.10	.50 . .14 . .08 .
wAIAH1 LOWER 1054 wAIAH1 UPPER 1052 wAIAWA 943 wAILUA KAI 1065 wAIMEA 947	17.1 23.7 2.5 4.3	5 .05 5 .05 9 .09	•51 •33		.37	•02	.03 .10		•17 •19 •31	•18 •12	.10 .20	•03 •11	.15	•01	.01	.02	.02	1.86	.02 .02 .21	.12 .25		5.95 .38	2.20 2.57 .02 2.43		•47	•04		.20	•25 •35	•15 4 •10 3	.34	.67 .70
wE5T LAWA1 931 A	3.6		•07	.08					.07	İ	.86	.01					•••	.33	.03	.02	*		1.07	.89	•12	T				•11		.03 .
* # # 15LANO OF CAHU																																
A1EA FIELO 625 761 A BERETANIA PUMPING STA CAMP 84 C P C 807 A CHURCH COLLEGE LA1E COCONUT I5LANO 840-1	4.8 3.8 2.7 4.2 6.0	3 7 3 .06	•02 •	.03		• 08		•	•28 •06 T	•21 •07 •05	.01 .03	т	.09	.34	.27	.32 .09 .02 .16	•09	.89 .24 .01	•01 •09 •02 •	.96 2.40 .90 .52 2.97	.06 .2.02 1.20	* •34 •27	*10 T *19 *17	•02	.14 .27 .26 .04	•30 •19 •19 T	•32 •15 •29	* •11 •04	* •02 •10	.03 .03 *	•42	1.18 . .48 .
EWA PLANTATION 741 HELEMANO INTAKE 881 A HOKULOA 725.2 HONOLULU OBSERV 702.2 HONOLULU WBAP 703 R	1.1 10.8 3.5 1.1 2.1	7 •08 6 *	* * T	* * T	*36	Ω #	:	.03	•21 • T •01	.02 .47	:	•10	:	•13	:	3.04	* * T	*	3.20	.31	10 1.00	*04	1.87	.76	*02	•06	*13 1.59 *	* * T	.03		.15 .53 .15	.03
HONOLULU SUBSTA 704 H S P A EXP 5TA 707 KAHANA 863 KAHUKU 912 KAILUA FIRE STA 791.3	3.5 3.8 28.5 V 8.8 2.8	9 4 9 .03	T • 06 • 04		e •04			.03	•25 6•10 •01	•03 •13	•05 •01	*02 T	.04		•	3.65	* .03 T	.05 .02 *	2.39	.02 2.19 .45 .73	• • •67		8 • 1 6 2 • 1 0	•09 •	.20 .26	.09 .22 .06	.38	T *	T	5.25	.61	5.38 ·
KALIHI RES SITE 777 KANEOHE MAUKA 781 KANEOHE RANCH 838 AAPALAMA 773 AAWAIHAPAI 841 A	8.0 10.6 9.3 5.7 3.1	5 4 .34 8	.40 .15 .13	.05	•06 •01 T	•02	.01	.36 .07	•18 •01 •05 •90	.50		•06	.20 .13 .10	.70 .75	• 31	T •62	.70 .36 .05	1.07 .72 .15	-10	.78 3.14 2.45 1.80	.92 1.23 1.20	.06 .90	.95 .03	T	.05 .11 .25	•20 •02 •20 •37	.06 .28 T	.26 .12 .05	.06 .08	•01 •05 •12	:	1.83 . 2.04 . 1.32 . 1.27 .
KAHAI IKI INTAKE 880.2 A KEMOO CAMP 8 855 A KOOLAU OAM 833 LUALUALEI 804 LUALUALEI WTR TUNNEL A	6.3 2.3 9.4 2.6	1 6	* •01 •28				:	.10	• 30 •02 •01	* 11 1.01	.03 T	• •03		:	* •42	• •13 •21	* 1.11	.04	.08 .60 .01	.82 1.50 .74	* •11	* •34 •70		• •10	* 10 1•34 •12	.01 .35 .01	* •01 •65 •01	•16	* •04 •30	•03	.01 .80	.03 . .49 . .50 .
LUNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUU POINY 724 MANDA 712	2.8 2.5 3.7 1.6 6.2	9	.09 .07		.05	•02		٠	**************************************	•11	.04	.17			.02			.01 .03	.30 .45 .40 .02	.76 .28 .24 .37	.37 .01 .76	•04			.02 .02 .07	•01 •07 •52	.26 .11	•10	•14		•03	.99 . 1.78 . 2.81 .
MANOA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 783 NUUANU RESERVOIR 5 775 A OPAEULA 870	11.3 3.1 7.7 8.1 3.9	6	•12 •01 •13 •20	.04	.02 .01 .04	•06 •01	.10	.70 .50	.36 .09 .33 .94	.06 .07 .12 .66	.02 .08	.20 .12 .04	.12 .04 .06	.18	1.10	•05	.22 .34 .03		2.22 .07 2.40 2.18	.30 1.38 .18 .35	.05	.04	•36	•06 •04 •02	.46 .16 .22 .22	.64 .08 .18 .49	.90 .18 .02 .32	.26 .12	•10 •12 •02		.52	.83 . 1.30 . .05 .
PALOLO VALLEY 718 PAUDA FLATS 784 POHTLOCK ROAO 724.4 PRI WAHIAWA 820.2 PUNALUU 884		2	.04 .30 .08	•01 •04	*04 *04 T		.08	1.52	•22 •48 •13 T	.02 .12	.04 .02	.20 .16	.04	.28	.04 e	•12 •56	.36 .50		2.14 2.52 .86 .09	.58 .26 .17	1.52	.04 .02 #	.87 .03	•02	.30 .28 .08 .42	•52 •40 •03 •08 •03	.42 .22 .04 .14	.20 .56		.04 1 .04 2 1.47	.06	.06 .02 .77
PUNCHBOWL CRATER 709 A ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713 A WAHIAWA CAM 863	3.7 8.0 8.4 4.1 4.6	9 1 T 9	•15 •16 •06	.10		T •04	.01 .03	.01 .09	•16 •03 •69 •24 •01	.19 .59	.02 .01 .01 .02	T T	.04 .06 .08	.01 .51	•01 •31	•08 *	.02 .01	.08 .59 .23 T	.06 .12 .01	2.10 2.35 2.35 2.25 1.58	.04	.01 .70 .39	T •01	T •01	.29 .08 .44 .14	.06 .02 .32 .35	•14 •06 •65 •47 •12	.01 .12 .25	•01 •04 •50	•09 •12 •03		.40 . 1.36 . 1.02 . .52 .
MAIAHOLE 837 WAIALAE KAHALA 715 WAIALUA 847 AAIANAE 798 WAIANAE MAUKA 803 A	15.7 2.7 1.0 1.8 5.3	7	•59 •04 •03	-	•03	.05	• 02		1.65	.38	.10	•12	.19 .03	•01		•62	.24	.70	.08 .06 .22	3.14 1.18 .73 .26	.04 .08 1.30	.05 .02	3.42		1.59 .10 .13 .01	.36 .18 .01	.94 .02 .01	• •01	* •05			.64 . .77 . .02 . 1.15 . 2.61 .
WAIAWA 836 A WAIKANE 885 A WAIKIKI 717*2 WAILUPE RESERVOIR 170 A WAIMANALO 794 A	12.8 25.1 2.3 3.4 7.8	3 1 8 •	.09	* * * * * * * * * * * * * * * * * * * *	• 24	1.55		:	2 • 2 6 • 2 8 • • 0 1	* T # 45	.18		1:15	.60	* *	* 4.43 *	*	*	.08 1.62	4.17 1.31 3.82	.01	* *02 *24	* 3.40	:	.04	* •08 •61	.09	* T	:	4.00	:	2.39 . 1.04 . .21 . .64 .
WAIMEA 892 A WAIDAHU 750 A WILHELMINA R15E 721	2.0 2.0 5.3	5	.08 T	•25				1.00	•03	.10	•02	•08			*	•03 •13		•02	.15 .04 I.92	.85 .54 .02	:	:	•22	•01	.08 .07 .20	.06 .05 .36	.02 .08 .10	.02	•02		.05	•14 • •24 • •02 •

See reference notes following Station and

Continued										است -							11,													HAWAII MAY	ī	1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day	of N	lonth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15LAND OF MOLOKAI																-10		• *	10	10	20	21	22	20	24	س	20	2/	20	29	30	31
KALAUPAPA 563 KAUNAKAKAI 536 A KEONELELE PEN5 551 A KUALAPUU 534 A MAPULEHU 542	2.12 1.67 2.90 4.82 3.10	.11		.15					•°1		•15			* * * * * * * * * * * * * * * * * * * *	:	.45 .67	*	.02 .89	1.90 1.19 # 2.90	•48 •88 •22	* 22 *	:	2.00		a .32	* •16 •24	• •02 •09	•		•25	• 20	* * * * * * * * * * * * * * * * * * * *
MAUNALOA 511 MOLOKAÍ AP 524 PUUOHOKU RANCH 542+1 WAIKOLU 540	5.38 5.74 4.07 10.31	.04							• 32 T	.10			*12			2.43 .63		*10		.42 1.90 1.10	.05 .51		*51	5 • 6 7		•18 •16 •12	T	T *	• •05	•01 T		.21 . .02 . .88 .
ISLANO OF LANA1																																
KANEPUU 690 A KAUMALAPAU HARBOR 658 A LANAI CITY 672 LANAIHALE 684 A MAHANA 694 A	4.36 3.33 8.74 9.86 7.80	*	:	:	•06	:	:	*	* 05 • 27 *	. 26	.02	.40 .13 .18 .83	* T * *	* * *52	** * 36 *	95 44 8	.02		2.00 1.33 2.32	* 41 *79	* * * * * * * * * * * * * * * * * * * *	n T n			* 4.50	1.88		:	* * 1 • 2 6 * *	.46 .02	D D	.08 . .33 . .69 . 7.80 .
MALAUEA 676 A WAIAKEAKUA 685	4.97	.01	*			٠	•		• •39	.10		.78 .21	:	:	*	2.82	:	* 1•72	3.28				4.67	•		.47		:	:	. 34		.44 .
# # # ISLAND OF MAUI																																
AUWAHI=252 A HALEAKALA B E 5 434 A HALEAKALA RANCH 432 A HALEAKALA R5 338 HALEAKALA R5 338 HALEAKALA SUMMIT 338.4	6.05 1.64 .25 3.66 3.30		*		*		T	e •05	• 0 2 n T	•	.01 * .14	.55 .01 *		.16 .49	*10	• •58 1•20	2.40 .19 .13 .71	e •05	•03 •05 •16	.02 .03 .17		.01	• 65	3.10	e T	e T	•12 •	.02	n •09	.04 .06 .15	÷21	
HALIIMAILE 423 HAMAKUAPOKO 485 HANA 3546 HANA AIRPORT HANAHULI 281	V 4.68 1.00 4.21 7.60	-10	.03 .24 .27	† •11 •23	.03	.08	.56 .11	.04	Ť	•02 T	.02	.02 .30 .31	.05 .74 1.09	.30 .31 1.15	* .07 .06	*51 † T	.13	.19	.02 .14 .01 T	.34 .32 1.50 .23 2.80	.20 .45 .10	n T	.23	•02 •02 T	.01 T	.05 .25 .06	.07 .03 .16 .15	.05 .06	•03 •25 •60	T T •09	T • 1 1	.01 . T .
HOLUA CABIN 259.5 A HONOKOHAU 480 A HONOKOHAU 493 A HONOKOHAU 493 A HONOMANU GULCH 341 A KAHOMA INTAKE 374 A	3.81 11.30 3.31 3.40 6.71	*	.03	.17	*02	• • 17		:	:			:	.03	*	*	* •68 *	* 16	*	1.02	2.90 *85 ** 5.47		* * * * * * * * * * * * * * * * * * * *	.16	*	.74		.25 .97		1.30 	• 11	n n n	3.40
KAHULUI WB AP R KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 A KEAHUA 410	2.05 5.24 5.58 5.12 .40	T * •26	T * •40	* •18	* •04	•	.02	T # .04	* •16 *	.01	.03	T • •21	.20 .13	7 ** *87 *	* •01 *	* 01 * T		*07	1.22	.76 a .14 4.61 .10	2.28	e •02	.01		.01	.03	• •21 •38	.32	.06 T	.04	T • • 0 2	T . 5.24 .
KEANAE 346 KEAWAKAPU BEACH 260.2 KIHEI 311 KIPAHULU 258 KULA HEIGHT5 323.2	9.90 .94 .70 7.09 2.23	•17	** *14	• 22	• 08	•	.10	.07	•17	•	.17	• 37	• 53	1.06	* T •05	•05	.03 .11	.11 .30	.08 .04 .61	.58 .57 2.45	.08 .05	•	•		•	• • • • • • • • • • • • • • • • • • • •	•02	.09	• 20	• 27	.47	9.90 · •01 ·
KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442	2.85 2.65 6.60 1.22 5.30			•				.03	•08 *		.02	•13	•02 •	.10	.25 .10	.02			.50 1.86 *	.45 .42 .40	•75 •27 •			*			.03		•51 *			.02 . 6.60 . 5.30 .
MAHINAHINA 466 NAKALELE -FLO 60-497 A OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 A	2.10 1.80 6.03 .72 5.80		.10	* T			:		•10 •14	.01	* •05	e +03	* T	* * •05		.26 2.62	.28	•01	•95 •15 •30	•54 • 16 •23	**************************************	*	1.14	•01		•03		.05 n		•30 •19		.05 .
PAAKEA 350 PAIA 406 PANILEIHULU 259.2 A PAUWELA 490 POHAKEA BRIOGE 307.2	10.26 1.26 14.42 1.20 1.96	.60	.78	.36	*	*	.13	.20	.79		.09	•18 • •10	.78	2.03	• 30 • 12	0.25	•27 #	•	•42 *	.28 .36 3.87 .12 .35	1.45 .13 	T #	**41	.30	•03	•22 •04	•47 •02 •	* 40	.35 n	•55 • •12	*14	
POLIPOLI SPRINGS 267.2 A PUOHOKAMOA 2 343 A PUU KUKUI MAKAI 472 A PUUNENE 396 5PRECKELSVILLE 400,2	7.07 9.80 6.00 1.98 1.14	:		.07 *	:	*	:	*	*	:	.38	:	:	:		*	:	4.50	.82 .50	• • •12 •50	* * 1.04 .13	*	*		1.16	* * * * * * * * * * * * * * * * * * * *		*			0 0	.96 . 9.80 . 6.00 .
TWIN GATES 261.3 A UKULELE 333 A UKUMEHAME 301 A ULUPALAKUA RANCH 250 WAHIKULI 364 A	1.70 4.61 .72 2.04 3.44		.19	*	:		:	:	• 08	:	:	•17	:	.12 .04		.25	:	*	* •20 •48 1•92		• •10 •31	:	:	*			• 02	*	:	• 13	B	4.61
WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI 0AM 336 WAIKAPU 390	4.85 4.98 6.20 8.25 5.44	1.61	* 28	* •05	• • • • • • • • • • • • • • • • • • • •	٠	:	:	• 23	* .01	.44	* •11	•08	.03	•12 •42 •	.02 .04 # 2.25	.06	* T	•72	.88 .41 .05	3.34	3.95	1.45	• 02		•05	• 73		*	.74	:	6.20 .
WAILUKU 392 WAIDPAI RANCH 256 A	3.19 9.25	.82	•01							•		*01	•11	• 02 *	*17	5.75		*	1.32	.32 2.57	1.33	Т				•01						•
15LAND OF HAWAII																																3.80
AHUA UMI 75 A AWINI 182-1 A EAST HONOKANE 1838 A HAINA 214 HAKALAU 142	5.25 2.97 8.04	3.29	.47 .14			•	.20	• • • • • • • • • • • • • • • • • • • •	.10		.23	•	.69 .58	* * * *11 *75	* * *01 *03	*72 *72	.02		.04	.03 .02		:	14	• 20 • 17 • 15	.06 .18 .05		.76 .83 .47	.84 .98	* * * * * * * * * * * * * * * * * * *	.66		3.80 . .16 . 5.25 . .05 .
HALEMAUMAU 52 A HALEPIULA 117 A HALEPOHAKU 111 A HAWAII VOLCNS NP HQ 54 HAWI 168 A	4.37 5.52 1.78 6.97 4.37		.03 .11	.04	T	.01	.35	.39	.27 .10			•20 •01	.02			1.33	1.32 .05	* 04 1 • 6 3	.01 .03	e T	.12	Т	•	•10 •06	.04	.09	.08	.63	.24	.09		.01 .
HILO WB AIRPORT R HOLUALOA 70 A HOLUALOA BEACH 68 A HONAUNAU 27 HONOHINA 137	9.84 8.00 .55 4.94 7.11	.05	.60	• 54	.06	.03 .50 .04	.05	.09 .03 .16	.02	.09	.03		.04 1.10	.02	2.69 8	.04 1.94	.79	.51	.02	.01 .20	.04	.02		•54	* •44 •20	.20 .05	.08	.06	•02 •17	.05 .01 .76	.01	.01 .
HONOKANE 181.1 A HONOMU MAUKA 138 HONUAULA 7I A HUALALA1 72 A HUEHUE 92A A	7.44 15.77 4.00 2.40 6.07		.03	.01 *	.08	.04 * .88	.43 .4	* 52 * 8	.18 .06 	.06		2.49	:	1.26	*	1.16	.02	***	*03	.08	04	:	.07	•12 •27 •	*12 *11 **	.06 #	.91	1.93		.84		4.00 .
KAALA 1KI 12 KAAMALOA 29 KAINAL1U 73B KAMAOA NO 2 5 KAMUELA 192+2	7.16 3.59 6.26 3.87 2.80		.18 .28 .12	.22	.73 1.04	.05	• 18	•25 # •22	•30 •15	.05 .42 .45	.02	.18 .12 .06	.22 .13 .10	.14	.33 .28	3.60 .12 T	.47 .10 .08	.07 .28 .25	.05 .72 3.70 .12	٠	.05 .03 .13 .28		.03	·01	•56 •87		.36 .65	.10	•06 •04	ø •05	*11	.09 .04 .15
												S 10		notes fo	llowng	Station	Index															

Conlinued	-		_		_										Da **	of M	onth														MAY		1967
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
AMUELA AIRPORT APAPALA RANCH 36 APOHO LANDING 935 AUMANA 88.1 AWAINUI LOWER 193	A	2.56 8.97 6.77 14.10 7.24	.06	°47	.10	.02	.60 .25 2.35	.64	T # # # 62	.39	.15 .05 .13	.29 .23	.38	.02 .59 2.96 2.00 1.82	9	.96 3.00 .24	2.45	.20	.03	•12 •04	T •04 3•29	•12 •15	T *	T	•01 • •06	.07		.27 1.16 1.51	.02 8 3.10	.62 .20	.04	.24	*
EAAU 92 EALAKEKUA 26.2 EHENA 181.2 EHENA RESERVOIR 176.1	A A	11.55 5.36 6.40 3.49 4.80	.09 .65	.26 .25 *	.22	.03 .72	.04	.45 .01	.28 .29 	.22 .25	.30 .28	.06 .05	.09 .07	2.72 .37 m .03	2.22		1.65 T * 1.10	.02	.03	.66 .35		.01		•02	.16 T .03	.08 .99 .05	•05 •09 •	.68 .39 .13	1.18	.18 .07	.75	:11 *	.01 6.40 4.80
1PA 89.2 OHALA 179A OHALA MAULILI 176 OHALA MI551ON 175.1 OIAWE LOWER 196	A A A	19.35 2.37 3.25 2.76 4.52	.05 .34 .96 .03	•21 •18 •53 •24	.02 T	.02	1+29	.10	.76	.47 .18 .01	.10	.67 .02 .13 .03	.81 .01 .01	1.45 .09 .13 .10	*	.08	4.94 .26 .33	.15	.04	•09 •08 •13	T 1.51	T # * •24	***	•18 •03	•37 •13 •16 •09	.05 .06 .03 .11	.07 .05 .13 .09	1.32 .22 .23 .22 .74	3.14	•35 • • •06	.99 .56 .40 .23	T *	.05
ONA AIRPORT 68.3 UKAIAU 222 UKUIHAELE HIC 199 UKUIHAELE MILL 206 ULANI CAMP 79		3.07 5.27 2.60 2.19 8.47	.08 .27 .10	T T .15 .09		.48	T	.05	. 85	.23 .04	т .	.05	.15	.07 .35 .30 .33 1.65	.33	.01			.07	.02 .03 .10	.22	.05			•26 •20 •30 •05	•01 •07	•27 •01 •03 •42	T 1.70 .63 .67	.66	•25 T	•20	.07	•10
ULANI MAUKA 76 ULANI 5CHOOL 5ITE 78 ANIHAU 68 C IANUKA 2 IAUNA KEA BEACH	A A	2.71 6.22 10.19 3.48	.50 1.56	.03 .17 .26		1.31	*15 *20	.10	:	.18	.05 .61	.03 .23	.11 .04	.31 1.88 .45		.62 .62	.15 .11 .54	.12	* 1.68	1.28	.05 2.03 .04	.03	:	• • • • • • • • • • • • • • • • • • • •	.08		.03 .37 .15	.22 .70 1.97	*10 *	* 12 *	• •50	.12	.30 .96 .85
IAUNA LOA 5LOPE 085 IJOOLE HOLUALOA 68.1 IJOOLE PEN 147.1 IOAULA 18 IOUNTAIN VIEW 91	A	2.75 2.99 2.09 5.40 12.84	.08 *	.27	.21	•23 •	•13	T #	•03 •56	.58	•20	.15	T *	.85 .18	.42 n 1.42	.27 .05	.11 .07	.70	.03 .28	.18 1.39	.66 e				• 03	* 28	•42 •		.01 	.50	•02 •		5.40
MAALEHU 14 MAPOOPOO 28 MAULU FOREST 38.6 MULII 179 DOXALA 223	A A	3.77 3.55 12.86 3.06 5.58	.61 .26	.01 .01 .30		•	٠	.54	.15 .27	.35 .64 1.46 .14	.58	.03 * .14 .03	.02	3.10 .15	.76 3.03	.05 2.28 4	.74 .70 .22 .30	.33 e .41	.18	.02 e .06	T * T .50	* T * T	:	.01 .38	• •03 •08 •17	* •06 •05 •36	+02		T +25 *	* 06 * • 02	.03 1.57 * .58	• 11	•
DPIHIMALE 2 24-1 DRCHIO LANO E5T 91-5 DAAUHAU 217 DAAUILO 221 PAHALA 21	А	5.20 9.84 2.58 3.75 5.97	T .06 .04	* •09 •01 •05	•06	•03	.29 2.29	.03	•	.01 .12	T *	.03	.06	.01 3.88 .51 .29	.07	.33 e .03 .03	.28 8	•32	.02	* <sup>21</sup>	.06 2.87	•19	T *		•02 * •15 •25		.03	.80		# T	* T	٠	.01
PAHOA 65 PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140.1 PEPEEKEO MAKAI 144	A	13.31 11.50 12.22 20.52 10.47	.08 .11	.41 .24 .19	.09	.10 .04	•	.40 .20 .41	.25 .38 .69	.20 .03 .29	.06 .11	.03 .12 .38	.03 .31	1.70	3.20 1.89 1.92 1.45	.04	2.39 4.28 9.35 2.92	.20 .03 .26	•	•		*	•		•18 •11 •07	.13 e .04 .05	.11	.34	1.60 1.69 .78	.26 8 .46 .43	.20 .41 .85	.01	11.50
PIIHONUA 89 POHAKULOA 107 PUAKO 95A PUU KAPU 192.1 PUU KIHE 120	A A A	22.04 2.66 1.02 4.73			:		:	:	.32 .05		.04		.02	.32	.60	1.15 .06	.27	.01	* 46	•	.04	:	:	:	:	:	:	:	:	:	.04	*	4.73
PUU LAAU 102.1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82	A A	4.35 3.60 4.46 V10.06 6.59	.60 .15	* * *35	.02		• • • • • • • • • • • • • • • • • • • •	.65	.31	.34	:	.27	.21	.08	* * * * * * * * * * * * * * * * * * * *	.12	8 8 1.35	.09	.90 .15	* * • 05 • 02	.07	* * *	:	.05	* * • 05 • 01	* * • 03	.04	.11	.45	# # # +26	* * • 36 • 17	*	4.35 3.60 4.46 .32
PUU WAAWAA 94.1 5AOOLE ROAO 1 84 5OUTH POINT CORRAL 3 JMIKOA 118 JPOLU POINT U5CG 159.2	A A	3.95 13.26 .04 V11.35	.02 #	.02 .02		P	T 1.21	.15	•	•59 •16	.02	T .		.05 5.55	T #	.19	.34	.01	.13	*31	.07 4.00	•25 •04 •26	•	*	* •02 T	•01	:	.09 .72	.02		•	.32	•10
ALAKEA 5CD 88.2		13.41	.05	•25					1.36	.21	.22	.40	.15	2.05	1.65		2.38								•37		.14	.81	1.78	.4.	.59		

## SUPPLEMENTAL DATA

		(	Wi Speed -	nd - m.p.h.	.)		Relati		idity ave	rages -		Num	ber of d	ays with	precip	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 Am	TH MERII	DIAN TIM	ME 8 PM	Trace	6010	10-49	8608	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WB AIRPORT	16	3 • 2	7.6	21	Ε	20	80	72	67	77	2	8	6	3	1	2	22	33	7.3
HONOLULU, OAHU, WB AIRPORT	7	5.5	8.8	24	NE	26+	74	67	61	70	10	6	2	0	1	0	19	63	6.2
KAHULUI, MAUI, WB AIRPORT	6	6.0	9.8	28	NE	06	82	77	59	76	9	1	0	1	1	0	12	74	6.5
LIHUE, KAUAI, W8 AIRPORT	6	6.7	9.7	22	E	03	84	78	70	78	5	7	2	4	0	0	18	60	7.6

### DAILY TEMPERATURES

HAWA11

																Day (	Of Mo	onth													AY		1967
Station		I	2	3	4	5	6	7	8	9	10	11	12	13		-			18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
* * *																										'	-						
ISLAND OF XAUAI																																	
(ANALOHULUHULU 1075	MAX MIN	69 55		72 57	72 54	69 52	72 48	71 47	72 54	70 53	68 53	71 50	70 49	70 49	72 49	74 53	74 54	74 51	74 61	67 57	70 58	72 60	70 59	65 57	67 55	68 56	69 53	72 55	72 57	71 54	71 54		70.5 54.0
CILAUEA POINT 1133	MAX	79 70	80 69	78 73	81 72	80 73	80 69	81 70	84 71	80 74	82 72	81 70	81	82 70	83 74	83	88 71	85 71	87 70	81 68	82 70	79 71	79 70	80 72	81:	8 1 7 1	8 1 7 1	8 I 7 2	81 72	81 73	80 72		81.5
LIHUE WB AIRPORT	MAX	78 71	8 1 7 1	79 73	81 74	8 2 6 8	82 74	83 65	81 68	79 70	82 74	83 73	82 69	82 67	86 65	84	83 71	88 65	80 68	82 69	78 70	76 69	78 72	80 71	81 72	8 1 7 1	81 72	8 2 7 2	82 73	83 74	80 71	84	81.4
MAXAHUENA POINT	MAX	82 67	80 70	83 70	82 70	8 2 6 8	86 68	87 67	86 68	86 70	84 72	85 67	84 70	85 75	86 72	89	88 70	88 70	91 72	85 70	84 69	84 72	82 71	81 71	82 74	8 2 7 1	82 72	82 72	83 71	84 72	87 74	81	84.3
MANA 1026	MAX	87 65	87 65	85 66	84 65	84 67	87 66	84 66	87 67	85 68	83 67	84 67	84 67	85 67	86 66	89 68	90 70	89 70	87 70	82 70	87 70	84 70	85 70	83 67	85 65	88 65	87 63	86 63	85 68	85 68	88 68	88	85.8 67.1
NIU RIOGE 1035	MAX	82 59	79 60	8 l 6 3	82 65	81 64	80 65	81 64	82 62	78 65	78 64	80 64	80 64	80 64	8 1 65	81	82 65	83 65	8 2 65	81 65	82 65	83	82 65	80 64	79 64	80 65	80 60	80 62	81	82 60	80 61		80.8
WATAHI LOWER 1054	MAX	75 63	78 61	76 62	78 63	81 62	80 63	82 60	80 62	78 63	80 62	80 62	80 61	8 2 6 0	84 60	85 63	85 65	84 62	81 63	78 65	77 65	76 65	76 66	78 64	79 64	79 65	79 65	80 65	81 65	79 66	78 64	80 63	79.6 63.2
* * *																																	
ISLANO OF GAHU	4																																
EWA PLANTATION 741	MAX	84	86 70	86 69	87 67	86 68	87 67	80 68	84 65	82 67	87 68	86 66	86 65	86 69	88 67	87 68	86 69	86 67	83 72	83 69	85 69	89	87 70	85 72	83 67	85 66	87 67	89 69	88 70	86 70	85 68	84	85.6 68.1
HONOLULU WBAP 703	MAX	84 72	87 73	85 72	87 72	85 72	87 72	80 70	84 68	84 69	85 70	85 71	87 68	84 73	86 71	86 72	85 72	86 71	82 73	82 72	8 3 7 2	88 73	86 74	85 71	84 71	84 70	86 71	87 71	86 73	86 73	84 71	85 68	85.0 71.3
HONOLULU SUBSTA 704	MAX MIN	80 72	8 2 7 3	82 73	83 73	83 72	82 67	78 69	79 70	8 2 7 1	83 72	82 73	84 70	81 73	8 1 7 2	83 73	81 74	8 2 7 3	78 71	80 73	81 73	84	82 75	8 2 7 1	79 70	79 70	81 70	83 73	82 73	84 74	8 2 6 7		81.5 71.6
XAHUXU 912	MAX	80 69	80 69	81 68	81 71	81 70			82 65	82 68	82 70	82 72	82 70			85 66	85 71	84 66	87 68	82 68			8 2 6 8	82 70	81 72	8 1 7 1	81 71			83 71	83 73	83	82.3
KANEOHE MAUXA 781	MAX	80 69	77 70	80 72	80 71	81 70	82 71	81 69	80 69	81 70	82 69	79 72	81 70	82 71	80 69	81 70	80 71	85 69	80 70	82 70	76 69	85 70	79 72	82 73	82 69	79 68	81 68	81 71	82 71	82 73	84 71	85 69	81.0
MAKAPUU POINT 724	MAX	79 68	77 70	79 69	78 72	78 70	81 72	79 71	79 72	82 70	80 72	80 69	79 72	79 72	85 74	83 73	84 75	83 74	83 72	79 71	73 69	82	81 75	80 73	80 72	78 72	78 71	79 72	80 74	80 74	80 73	82 75	80.0
DPAEULA 870	MAX	85 66	78 66	78 66	78 66	78 65	78 64	80 64	78 62	78 62	80 64	81	78 63	84	82 63	85 66	84	86 68	85 67	80 64	78 65	80	81 67	81 66	78 64	78 65	79 65	80 67	83 70	81 67	83 67	80 65	80.6
PRI WAHIAWA 820.2	MAX	82 62	82 65	83 68	83 66	84 63	85 64	85	85 61	82 63	80 66	86 63	86 61	86 66	86 65	86 61	87 60	85 59	86 59	79 66	79 68	86 66	86 66	84 69	83 65	80 65	82 64	82 66	85 70	85 66		87 63	83.9
WAIALUA 847	MAX MIN	82 59	83 63	83 67	84	86 64	85 64	84	82 64	84 64	84 66	85 63	85 62	87 63	85 68	86 67	86 68	86 67	90 70	78 67	82 67	83	87 68	85 66	83 66	82 64	83 64	84 65	86 66	85 68	88 66	86 66	84.5
WAIXIKI 717.2	MAX	86 71	87 72	87 73	87 72	88 68	89 71	87 70	80 66	85 67	8 <b>7</b>	87 70	87 67	91 71	87 67	87 69	90 67	89 69	88 73	84 72	87 71	86 71	88 73	86 73	85 70	86 70	86 70	86 72	88 74	88 71	90 72	88 67	87.0 70.3
ISLANO OF MOLOXAI																																	
MOLOXAI AP 524	MAX	80 71	80 68	82 69	82 69	83 69	83 69	80 70	79 67	78 69			80 70	85 69	81 72	85 69	83 70	83 70	83 68		78 70	83 74	82 68	86 72	81 68	80 69	81 72	81		85 69	84 69	82 69	81.7
* * *																																	
ISLAND OF LANAI																																	
LANAI CITY 672	MAX	75	78 62	80 61	80 63	79 64	77	76 66	79 64	80 65	75 64	76 64	77	78 65	77 67	80 66	78 65	77 66	74 64	72 63	76 64	74 66	77 65	79 67	79 65	77 64	80 65	78 68	81 66	78 64	79 64		77.5 64.8
ISLANO OF MAUI																																	
HALEAKALA RS 338	MAX			65 52	65 53	70 43	62 40	62 41	61 41	61	58 44	61 51	61	61 42	63 45	63 48	64	64 46	64 55	61 54	61 47	65 47	66 50	61 44	63	60 45	61 42			63 45	63 44		62.6 45.5
HALEAKALA SUMMIT 338.4	MAX	57 47	58 46	52 36	55 40				57 44	55 49	58 51	56 50				56 49	55 46	57 48	55 43				55 44	57 42		57 44	58 45			57 43		56 44	56.3 45.2
HANA AIRPORT	MAX						76 72	81 69	84 73	8 2 7 2	83	84 70	85 70	82 70	83 68	85 75	85 75	84 71	87 70	79 71	82 71	84	85 71	85 73	85 66	85 72	85 70	85 73	86 69	85 71	85 72	84 71	83.7 71.0
XAHULUI WB AP	MAX		86 65		86 65	87 64	85 65	87 64	84 66	85 64	86 70		87 66		8 8 6 8	90 68	88 70	85 67	78 74	80 71	87 71	85 67	84 73	83 73	82 71	83 70	85 71	85 69	86 69	88 66	87 66	85 65	85.1 68.2
XAILUA 446	MAX		81	81 62	81 62	81 62	8 1 6 2	81 62	81 62	80 62	77 66	80 70	79 65	80 70	80 71	83 68		82 69	82 69	82 67	8 1 7 2	82 73	82 71	80 70	80 69	80 67	79 68	79 70	80 71	80 69	80 67	80 71	80.6 67.1
XULA SANATORIUM 267	MAX		72 57	74 57	73 56	74 57	72 59		72 59		69 59			75 61		74 60	70 58	70 58	69 59	68 59	68 58	69 58	71 55	70 55	69 55	75 56	72 56	72 57	72 58	73 62			71.5 58.2
LAHAINA 361	MAX	87 64		87 65	87 66	88 63	89 65	88 66	88 67	86 66		87 66	87 65	87 70	87 65	88		88 68	88	78 69	86 67	89	88 64	.88 68		87 64							87.1 66.1
WAILUXU 392	MAX MIN	81	78 68	84	84	85 68	86	85 64	86 64			84 68							87	78 68	84 67	86 66	84 69	83 69	84 67	83 67	84 68	82 70	85 69	81 65	87 69	87 65	84.7 67.3
	;																																
		1																															

Continued									D	ΑI	LY	T	EM	PE	RA	TZ	UR	ES	5												AAI1		1967
																Day	Of Mo	onth															age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28									29	30	31	Average					
ISLANO OF HAWAII																																	
HAINA 214	MAX M1N	74 63	78 66	81 66	80 63	80 64	81 64	78 59	81 63	80 62	8 2 6 5	8 Z 64	81 64	80 66	81 65	86 65	87 68	85 67	86	84 66	85 63	86 65	83 68	85 66	83 64	85 63	8 3 6 5	86 64	82 67	84 67	85 64	85 66	82.5
HAWAII VOLCN5 NP HO 54	MAX	68 55	68 52	70 54	70 52	70 51	71 51	63 51	68 54	65 52	65 54	68 55	71 57	71 57	69 55	66 58	70 57	71 54	74 53	74 53	71 53	75 53	79 53	70 54	68 52	70 51	69 54	67 56	71 55	67 56	72 52	72 51	69.8
HILO W8 AIRPORT	MAX	82 68	84 68	84 69	85 68	84 67	81 68	82 68	81 69	82 68	85 71	84 71	85 71	83 71	79 71	84 73	86 70	87 69	91 69	87 68	88 69	87 71	85 69	84 70	85 67	85 67	84 71	86 72	84 71	86 72	87 70	87 69	84.6
KAINALIU 73B	MAX M1N	80 63	78 62	8 0 6 2	77 64	79 61	79 61	79 61	77 62	77 62	79 65	77 63	79 63	80 65	80 62	78 64	81 64	77 62	72 64	79 63	77 62	80 62	81 63	80 62	78 61	78 59	78 61	80 63	80 63	81 62	80 63	82 63	78.8 62.5
KAMUELA 192.2	MAX M1N	71 57	71 58	72 52	74 53	76 55	76 59	73 49	77 50	76 53	80 58	74 58	72 58	80 58	77 57	80 57	80 60	81 57	81 61	78 55	79 53	80 56	79 59	72 58	71 58	72 58	72 57	74 60	72 58	75 56	80 50	78 53	75.9 56.2
KAMUELA AIRPORT	MAX MIN	71 65	72 55	74 54	74 54	76 54	74 64	73 54	74 65	74 54	74 60	75 58	73 59	75 66	74 59	76 65	76 58	78 56	75 64	75 59	75 58	76 60	75 59	72 50	73 55	72 58	73 61	71 61	74 60	75 62	75 59	74 59	74.1 58.9
CEAAU 92	MAX MIN	83 64	80 65	8 4 6 5	83 65	83 64	82 64	82 64	82 64	80 65	80 65	81 67	82 67	85 68	85 68	85 68	82 68	84 67	86 64	88 64	87 65	87 65	87 65	82 66	82 64	82 63	83 64	85 67	85 67	85 67	85 67	85 65	83.6
KEALAKEKUA 26.2	MAX M1N	80 64	80 63	80 64	77 66	80 64	80 62	80 62	80 64	78 64	81 66	79 64	81 64	80 65	80 65	79 66	82 65	78 64	77 65	79 64	78 64	83 65	81 64	80 65	79 63	79 61	77 61	81 64	81 66	83 65	82 65		79.1
KOHALA M15510N 175+1	MAX MIN	77 65	76 68	80 69	80 69	81 68	81 68	79 65	80 64	79 64	83 66	80 66	80 66	82 67	82 68	84 68	83 68	82 68	85 71	85 68	81 66	84 66	82 66	81 67	80 66	80 67	80 67	80 68	81 69	80 70	82 65	83 66	81.1 67.
KONA A1RPORT 68.3	MAX MIN	82 70	81 70	83 70	84 69	83 70	82 70	83 70	82 67	81 69	83 69	86 70	84 70	83 69	84 70	83 70	85 71	87 71	86 71	84 71	84 69	84 71	84 72	85 71	86 68	85 67	85 69	85 70	86 70	85 70	84 70	87 70	69.
KULANI CAMP 79	MAX MIN	64 48	64 44	64 46	65 42	64 45	56 40	64 45	64 51	62 47	66 51	64 50	64 54	66 53	58 51	64 54	67 46	66 45	69 47	68 47	67 42	69 42	74 46	64 50	64 46	62 46	62 45	59 52	63 51	64 54	65 46	67 47	64.
MAUNA KEA BEACH	MAX M1N																																
MAUNA LOA 5LOPE 0B5	MAX M1N	52 34	56 34	52 35	53 34	55 34	53 36	52 35	54 36	54 37	54 41	51 36	45 37	48 37	48 36	48 37	50 36	53 36	53 34	50 35	55 37	5 1 35	5 3 3 3	50 31	53 33	51 35	5 l 3 5	5 2 3 5	53 34	55 31	5 1 3 3	51 34	51.8 35.0
MOUNTAIN VIEW 91	MAX M1N	70 63	73 59	77 60	78 58	79 57	78 57	70 60	74 63	71 60	74 59	74 61	76 61	77 64	75 64	73 66	76 65	78 61	81 61	8 4 6 1	82 60	83 62	83 62	79 61	76 59	78 58	78 58	72 60	78 63	74 63	79 60	79 60	76.
NAALEHU 14	MAX M1N	81 67	78 68	80 70	18	80 67	80 67	81 65	81 65	79 67	79 67	<b>7</b> 9 67	80 68	80 68	81 67	81 67	80 68	77 68	81 66	82 67	82 67	82 66	82 66	80 68	80 65	82 63	81 66	81 66	82 66	82 68	8 2 6 7	81 68	80.6
00KALA 223	MAX M1N	75 67	79 68	82 68	80 69	80 68	82 68	80 67	82 66	81 67	82 66	81 68	82 68	81 69	81 68	83 69	83 69	8 l 6 8	83 70	84 68	8 I 66	83 67	8 3 6 8		82 66	83 65	82 67	78 67	82 68	82 68	82 69	81 68	81.4
OPIHIHALE 2 24.1	MAX MIN	81 62	82 64	80 63	81	83 60	76 61	76 62	77 61	78 63	76 63	78 63	77 65	78 62	79 60	83 64	77 63	75 62	78 62	77 62	83 62	81 63	8 I 60	80 62	81 62	74 59	79 61	84 61	83 62	82 62	82 63	83 63	79.5
PAHALA 21	MAX MIN	80 63	78 62	80 63	80 64	80 64	80 60	77 62	79 64	72 63	78 65	79 63	81 64	80 65	80 65	79 66	79 67	78 64	79 63	80 63	81 64	80 64	82 61	8 2 6 2	8 1 6 1	82 60	81 61	80 64	87 66	81 66	82 62	81 62	80.0 63.3
UPOLU POINT U5CG 159.2	MAX M1N	81 66	84 64	82 68	82 66	83 71	81 68	82 67	82 69	81 65	81 68	81 71	83 69	8 Z 7 4	83 74	86 67	87 66	86 73	84 71	85 73	86 73	86 71	82 67	84 69	81 70	82 69	83 68	8 2 6 5	83	83 67	84 67	85 70	83.1

### EVAPORATION AND WIND

Charles																Day	Of Mo	onth															Tel 6
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	18	17	18	19	20	21	22	23	24	25	28	27	28	29	30	31	Total or Avg.
* * * ISLANO OF KAUAI																																	
LIHUE WB AIRPORT	EVAR WIND MAX MIN		157 87	155	103	70	90	56 90	92	.26 84 93 66	49 94	93 90	89 90	54 92	48 95	95	•30 56 93 72	92	53 95	69 80	87	.15 179 88 69	164 76	176 83	205 86	88		146 89	115	•35 98 92 71	•30 71 94 71	38 87	8.42 3090 89.0 68.3
# # # 15LANO OF OAHU																																	
HONOLULU 085ERV 702.2	EVAP WIND MAX MIN	37 89	38 90	57 90	88	38	26 95	36 95	83	23	23 90	36 90	38 91	22 96	27 96	24 94	•26 23 95 71	24 94	25 96	20 95	26 95	13 97	36 95	53	48		.28 38 67	45 92	• 25 42 - 70	.32 38 93 71	14	18	8.218 989 92.7 69.1
* * * 15LANO OF HAWAll																																	
HILO WB AIRPORT	EVAP WIND MAX MIN		71 90	89	100	8 2	79	72 83	81	74 81	82 86	•21 73 85 67	72 84	• 05 65 82 69	40 75	85			83	77 87	.33 110 88 68	.28 67 91	74 92	-18 69 88 70	•27 80 91 65	91	.16 77 85 68	• 26 78 90 69	.09 54 82 68	•30 72 90 69	•27 92 89 68	103	6.518 2364 86.2 67.4

# STATION INDEX

				++	64	м	z		ERVA			THE DEAT						OBSERVATI		HAWA 11 MAY 1967
STATION	INDEX NO.	DIVISION	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		PRECIP THE EVAP	s	OBSERVER	STATION	. ×	NOISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TIME ANI		OBSERVER
ISLANO OF KAUA1 ALEXANDER RESV. 983 ANAHOLA 1111 BRYGESWOOD STA 985 EAST LAMA1 934 EKW 3 RESERVOIR 1094.; ELEELE 927 HALAULA 1110 HALEMARAHO 1006 HANALET TUNEL 1053 HUKIPO 7UNNEL 1053	A 0145 A 0240 A 0456 A 0470 A 0935 A 1038 1170	5 01 0 02 5 02 5 02 0 02 5 01 8 02 0 01	KOLOA KAWAIHAU KOLOA KOLOA KAWAIHAU KOLOA KAWAIHAU LIMUE **AWAIHAU WAIMEA	2 2 2 1 2 1	21 56 21 55 22 06 21 54 22 07 21 58 22 05	159 32 159 19 159 32 159 32 159 30 159 22 159 35 159 19 159 26 159 28	1610, 116, 720, 441, 350, 163, 253, 490, 1218, 800		7A 7A 7A 6A 7A 8A	C	MC BRYDE SUGAR CO. LIHUE PLANTATION CO MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD LIHUE PLANTATION MC BRYDE SUG CO LTD LIHUE PLANTATION GROVE FARM CO LTD LIHUE PLIN CO LTD LIHUE PLIN CO LTD LIHUE PLIN CO LTD REVARMA SUGAR CO LTD	KAUMALAPAU HARBOR 658 A LANAI (2117 672 LANAIHALE 684 A MAHANA 654 A MALAUZA 676 A WAIANZAKUA 685	3461 5286 5301 5704 6012 9021	01 LAHAINA 01 LAHAINA 01 LAHAINA 01 LAHAINA	1 20 5: 1 20 4: 1 20 4: 1 20 4: 1 20 4: 1 20 4:	7 157 00 156 55 156 53	1640 30 1620 3370 1430 1135 2040	wi   0   8A   7A   7A   1A   1A   1A   1A   1A   1		COLE COMPANY DOLE COMPANY COLE COMPANY COLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY
KEALIA 1112 KEKAHA 944 KILAUEA 1134 KILAUEA FIELO 17 1135	A 3104 A 3159 A 3982 4272 A 4566	01 03 01 01 01 03 01 01 01	HANALE 1 WAIMEA FAWAIMOU KAWAIMAU KAWAIMAU WAIMEA HANALE I HANALE 1	1 3 1 1 1 1 1 1	22 09 22 11 22 08 22 08 22 08 22 05 22 06	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25 159 24	1070 690 400 3600 800 175 9 9 317 415	ВА	7A W1 7A 8A 7A 7A 8A 6A 7A	c c c c c	LIHUE PLTN CO LTO  MC BRYOE SUG CO LTO KILAUEA SUG PLTN CO KANALOMULUHULU R. S. LIHUE PLANTATION LIHUE PLTN CO LTO LIHUE PLTN CO LTO KELAHA SUGAR CO LTD KILAUEA SUG PLTN CO KILAUEA SUG RITN CO	FIELD 46 474  MAELANU 477  MALEARALA 8 5 5 334  MALEARALA RANCH 4,2  MALEARALA SUMMIT 338.4  MALEHARU 492.2  MALHAMALE 423  MANAKUAPOKO 485	0541 0790 0995 0997 1004 1008 1016 1075 1686	C2 MANA 04 LAHAINA 05 LAHAINA 01 MAKAWAO 01 MAKAWAO 02 MAKAWAO 02 MAKAWAO 02 MAKAWAO 01 MAKAWAO 01 MAKAWAO 01 MAKAWAO	2 20 37 4 20 59 4 20 51 1 20 51 1 20 52 2 20 48 2 20 43 1 20 55 1 20 55	7 156 38 7 156 36 1 156 18 1 156 19 1 156 15 1 156 16 1 156 17 1 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	7A 6A 8A 8A 8A 8A 5A 5A	Si	ULUPALAKUA RANCH MAUI RIMEAPPLE COMPANY U OF MAWAII EXP STA HALEANALA RANCH CO HALEANALA NAT PARK U OF MICH MT HKALA OU :/ PHIL SCOT! HAUNI PINEAPPLE CU. HAWAIIAN CON + SUG CO
KOLOKO RES 1137 KUKUIULA 935 LIHUE VARIETY STA LIHUE 1020 LIHUE WB AIRPORT	4650 4735 A 4742 A 4750 A 4758 A 4950 5560 A 5575 R 5580	03 03 02 02 02 01 02 02 02 02	KAWATHAU KOLOA LIHUE LIHUE LIHUE	3 3 2 2 1 2 2 2 2	22 04 21 55 21 58 22 11 21 54 22 01 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 23 159 23 159 22 159 21	180 2150 36 240 640 737 104 375 207	MID I	7A 8A 7A 7A 6A 7A 7A 910 8	C C AC J	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGGR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD KILAUEA SUG PLTN CO MC BRYOE SUG CO LTD HAWAIIAN SUGAR PL ASSN LIHUE PLTN CO LTD U S MEATHER BUREAU	HONDFOHAU 48U A MONISCHUA 491 HONDLUA FLU 49 494 HONDMANU GULCH 341 AO NEEDLE 387.2 KAHONA INTAKE 374 A	1125 1148 1552 1882 1887 1914 1935 2208 2552	Ol HANA Ol HANA Ol HANA Ol HANA Ol HANA Ol HANAWAU U4 LAHAINA O4 LAHAINA O4 LAHAINA O5 MAKAWAO O3 WAILUNU O4 LAHAINA	1 20 45 1 20 48 1 20 48 1 20 45 4 20 56 4 21 30 4 1 01 1 20 47 3 20 54	156 01 156 01 156 13 156 36 156 36 156 38 156 14 156 33 156 38	6930 870 135 125 6280 1100 2000	8A   C   T   T   T   T   T   T   T   T   T		HARRY HASEGAWA HAWAIIAN AIRLINES KOALI RANCH HALEARALA NATL PARK DU HALEARALA PINCAPPLE CO MAUI PINCAPPLE CO MAUI PINCAPPLE CO HALEAKALA RANCH CO STATE DIVISION OF PAR) PIONEER MILL CO LTO
MAKAHUENA POINT MAKAHUENA POINT NANA 1026 M + M 1001 MOHIHI UPR CROSS 1083 MOLOAA 1145 MOUNT WAIALEALE 1047 NIU RIOGE 1035 N WAILUA 01TCH 1051 N WAILUA RIVER 1055	A 5864 6082 6097 6433 A 6529 6565 6850 6888	03 03 02 01 01 02 03 02	KOLOA WAIMEA WAIMEA KAWAIHAU WAIMEA WAIMEA UIHUE LIHUE	3 2 3 1 2 3 2	21 55 22 02 21 55 22 07 22 11 22 04 22 02 22 04	159 27 159 38 159 46 159 28 159 36 159 20 159 30 159 44 159 28 159 26	521 140 11 300 3500 3300 5075 1250 1110 650		8A 7A 9A 410 7A		U S COAST GUARD OLOKELE SUGAR CO KEKAHA SUGAR CO LTD GROVE FARM COMPANY U S GEO SURVEY LIHUE PLANTATION CO. U. S. GEO, SURVEY KEKAHA SUGAR CO LTD LIHUE PLTN CO LTD LHUE PLTN CO LTD LHUE PLTN CO LTD LHUE PLTN CO LTD	KATLIILI 436 KATUMA 446 KAUAULA INTAFC 375 KAUPO RANCH HOUSE 259 KEANUA 416 KEANAE 346 KEANAKAPU UEACH 260.22 KINEI 31 KIPAHULU 258	2630 2679 3433 3576 3910 4091 4193 4489 4634	MARAWAO MAILURU MANA	1 20 39	156 16 156 13 156 38 156 08 156 23 156 10 156 27 156 27 156 04	48 2520 700 1585 1020 480 980 20 90 260	7A W11 C 5A MOI 6P 7A		U.S. MEATHER BUREAU E MAILI IRP CO LTD E MAUL IRP CO LTD FLOREER HILL CO LTD KAUPO RANCH HAWAIIAN COM + SUG CO E MAUL IRP CO LTD A. L. + CORELL HAWAIIAN COM + SUG CO KIPAHULU CATTLE CUMPANY
RESERVOIR 6 1004 STABLE CAMP 1055.i WAHIAWA 930	8165 8205 A 8217 A 8573 8694 A 8941 A 8949 8958	01 02 02 02 02 02 02	WAIMEA LIHUE LIHUE LIHUE KOLOA	2 2 2 2 2 2 2 2	22 13   22 01 21 58 21 57 22 04 21 54 21 58 22 01	159 34 159 29 159 42 159 24 159 27 159 27 159 34 159 31 159 27 159 28	101- 295 1660 329 420 740 215 2100 565 780		6A 7A 7A 8A 8A 8A 7A MOI 6A 8A	00	MC BPYOE SUG CO LTO PRINCEVILLE RANCH KENAMA SUGAR CO LTO GROVE FARM CO LTO GROVE FARM CO LTO LIHUE PLANTATION CO. MC BYOE SUG CO LTO MC BYOE SUG CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO	AULA HELOHTS 323.2 XULA SANATURIUM 267 LANAIMA 361 LAUNIUPONO INTAKE 376 A LAUNIUPONO INTAKE 376 A LAUNIUPONO VILLAGE 372A LUPI UPPER 442 MAHINAHINA 466 AALJHIA 482.2 MGAJPEA 475	5003 5006 5177 5404 5408 5665 5715 6042 6521	DI MAKAWAO DA LAHAINA DB WAILUKU DA LAHAINA	4 20 54 2 20 47 2 20 42 2 20 53 4 20 51 1 20 53 4 20 57 4 20 57 4 20 57	156 19 156 22 156 41 156 37 156 39 156 15 156 40 156 32 156 37	5788 2520 3004 45 1280 220 1240 715 1040 129	6 A C 7 A 7 A C 7 A 7 A C VAR 7 A MO 7 A C		MAUL PINEAPPLE CO KENNETH ALLETY KULA SANATORIUM PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD E MAUI IRR CO LTD PIONEER MILL CO LTD B S OF A COUNCIL MAUI PINEAPPLE CO
WAIMEA 947 WEST LAWA1 931 ISLANO OF OAHU	A 9467 9629 A 9955	02	WAIMEA KOLOA	3 2	22 02   21 57 , 21 54	159 43 159 21 159 41 159 31	10 50 20 210		8A 8A 6A		KEKAMA SUGAR CO LTD LIMUE PLANTATION WAIMEA SUG MILL CO MC ERYDE SUG CO LTD	OLCWALU GULCH 377 A PAAKEA 350 PAIA 4J6 PANILEIHULU 259.2 A	7040 (7059 (7066 (7194 (7566 (7857 (	D1 MAKAWAO LAHAINA LAHAINA D1 HANA WAILUKU PAKAWAO	4 21 02 1 20 48 4 20 49 4 20 51 1 20 49 1 20 55 2 20 41 1 20 55	156 17 156 38 156 36 156 07	340 4127 7 800 1260 170 3570 485	W1 VAR: 7P MO 6A 6A W1 7A		MAUI PINEAPPLE COMPANY MAUI CO WATER OEPT PIONEER MILL CO. PIONEER MILL CO LTO E MAUI IRR CU LTD HAWAIIAN COM + SUG CO KAUPO RANCH CO. HASEROT PINEAPPLE CO.
BERETANIA PUMPING STA CAMP 84 C P C 807 CHURCH COLLEGE LAIE COCONUT ISLAND 840-1 OWSEIT HIGHLANDS 780- EWA PLANTATION 741 HALAWA SHAFT 771-2 HELEMANO INTAKE 881 HOKULOA 725-2	A 0300 0340 0350 0438 0507 0964 A 1384 A 1540	03 01 02 03 02 05 03	EWA KOOLAUPOKO KOOLAUPOKO HONOLULU EWA HONOLULU WAIALUA EWA	1 2 3 2 5 3	21 19 21 25 21 39 21 26 21 21 21 21 21 23 21 23 21 24	157 57 157 51 158 04 157 56 157 47 157 50 158 02 157 54 158 00 158 00	455 20 680 20 13 565 42 170 1274 2220	8A'	5P BA 7A W1 AR	2000	WAIAHOLE WIR CO LIU BOARO OF WIR SUPPLY CALIFORNIA PKG CORP RICHARO COBURN U OF H MARINE LAB J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA AGR CO LTO H. V. VON HOLT	POLIPOLI SPRINGS 267-2A PUOHOKAMOA 2 343 A PUO AUNUI MAKAI 472 A RUUNENE 396 PUU PAN 1 396 PUU PAN 1 307 FRECKELSVILE 400-2 TMIN GATES 261-3 A UKULELE 333 A	8060 (8070 (8336 (8444 (8543 (8553 (8553 (8553 (8742 (8744 (	S WALLUKU	2 20 41 1 20 50 4 20 55 3 20 53 1 20 56 3 20 56 3 20 56 1 20 48	156 20 1 156 13 156 38 156 27 156 03 156 25 156 23 156 15	2980 2500 600 2160 85 1310 5230	MO MO 7A, 8A, VAR, MO 7A	-59	MASEROT PINEAPPLE CO. WAILUKU SUGAR CO. STATE DIV OF FORESTRY  E MAUL IRR CO. LTO. PIONEER MILL CO. LTO. MAWALIAN COM + SUG CO. EASI MAUL IRRIGATION CO. MAWALIAN COM + SUG CO. KADNOULU RANCH. MALEAKALA RANCH. CO.
M S P A EXP STA 707 KAALAKE! 724.6 KAHANA 883 KAHUKU 912 KAILUA FIRE STA 791.3 KALIHI RES SITE 777 KAMEHAME 724.7	2146 2269 A 2462 2570 2683 2960 3056	02 02 02 02 01 01 01 02 01	HONOLULU HONOLULU MONOLULU KOOLAULOA KOOLAULOA KOOLAULOA KOOLAULOA KOOLAULOA KOOLAUPOKO	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21 20 21 19 21 18 21 18 21 31 21 41 21 24 21 23	158 00 157 55 157 52 157 50 157 43 157 54 157 57 157 45 157 50 157 41	12 50 10	MIO M MIO M	9A 9A 11D 110 8A W1 8A 8A		U S COAST + GEOCETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU H S R A EXP STATION MRS. MILLIE ZAPATA WAIAHOLE WIR CO LTO KAHUKU PLIN CO KAILUA FIRE STATION BOARD OF WIP SUPPLY HAWAII NATIONAL GUARD	ULUPALAKUA RANCH 250 AAHIKULI 364 WAIEHU CAMP 484 WAIEKU YARE YARE YARE YARE YARE YARE YARE YARE	9275 0 9315 0 9332 0 9336 0 9376 0	A LAMAINA A LAMAINA A LAMAINA A WAILUKU A MAILUKU A MARAWAO A WAILUKU A MANA	2 20 39 4 20 59 4 20 59 1 20 57 1 20 57 1 20 49 3 20 52 1 20 48 3 20 52 2 20 38	156 31 156 32 156 12 156 14 156 31 156 09 156 30	1900 580 320 300 1200 4320 470 2630 200	6A 6		PIONEER MILL CO LTO ULUPALAUM RCH CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO WAILUN SUGAR CO E MAUI IRP CO LTO MAUI CONUTY #IP OPPT WAILUNU SUGAR CO EST MAUI IRPICATION CQ TI, ANTHONYS BOYS SCH HALERALAR RANCH CO
KAPAKAM ARKAI 905-1 KAPALAMA 773 KAWAIHAPAI 841 KAWAI IKI INTAKE 880-2/ KAWELA MAUKA 906-3 KEMOO CAMP 8 855 KOOLAU DAM 833 LAIE 903	A 3123 3220 A 3268 A 3734 A 3741 3825 A 4318 4766	01 02 05 05 05 05 05 05 05 05 05 05 05 05 05	KOOLAUPOKO KOOLAUROKO KOOLAULOA HONOLULU WAIALUA KOOLAUPOKO WAIALUA KOOLAUPOKO WAIALUA KOOLAUPOKO	1 2 1 2 2 2 5 2 5 2 5 2 5 2 5 2 5 2	1 23 1 36 1 21 1 35 1 34 1 40 1 33 1 30	157 49 157 47 157 54 157 52 158 11 157 59 158 00 158 05 157 58 157 56	225 365 10 614 20 1180 1050 725 1160		7A 8A 7A W1: 7A 8A 7A	k	STATE HOSPITAL  KANEOHE RANCH CO GEORGE H. SWIFT  KAMEHANCHA SCHOOLS  WAIALUA AGR CO LTO  WAIALUA AGR CO LTO  WAIALUA AGR CO LTO  CHAWAII NATIONAL GUARD  WAIALUA AGR CO LTO  C + F OFFICER HEOG  CLOSEO 4/30/67	ISLAND OF HAWAII  AHUA UMI 75    AWINI 182:1    EAST HONOKANE 1838    AHAINA 214    HAR ALAU 142    HALEMAUNAU 52    AAIFOLINI 3 137	0043 0 0193 0 0450 0 0840 0 0905 0 1033 0	5 N KONA 1 N KOMALA 1 S KOMALA 1 HAMAKUA 2 S HILO 3 KAU	5 19 38 1 20 10 1 20 07 1 20 06 2 19 54 3 19 24	155 47 155 43 155 43 155 28 155 08 155 17	5220 1870 4240 461 105 3648 5770	MOI W1 MOI 7A 7A 7A MOI	1	GREENWELL RANCH KOHALA DITCH CO LTD KUHALA DITCH CO LTD HUNDKAA SUGAR CO REPEEKEO SUGAR CO- HAWAII NAT PARN KUKAIAU RANCH CO
LUALUALEI MTR TUNNEL / LUALUALEI MTR TUNNEL / LUCUKU 781.7 LUNALILO MOME 724-2 MARAHA VALLEY 800-1 MARAHA VALLEY 800-1 MARAPUL POINT 724 MANDA T12 MANDA T12MANDA 712 MANDA TUNNEL 2 716 MAUNAWILI 787.1	5650 5655 5675 5766 5781 5800 6122	04 9 01 8 02 8 04 9 02 8	WAIANAE WAIANAE KOOLAUPOKO HONOLULU WAIANAE HONOLULU HONOLULU HONOLULU HONOLULU KOOLAUROKO	4 2 1 2 2 2 4 2 4 2 2 2 2 2 2 2 2 2	1 17 1 28 1 29 1 19 1 19 1 20	158 08 158 08 157 49 157 42 158 13 158 12 157 39 157 49 157 48 157 46	113 1500 240 40 25 160 538 220 650 410	BA	7A W1 7A 7A 8A 8A 8A		USN AMMUNITION DEP U.S. NAVY MILNOR LUM LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO U.S. COAST GUARD MRS.JOHN H.BEAUMONT BOARD OF WITR SUPRLY EXP. STA. H.S.P.A.	HILO WE AIRPORT R HOLUALDA 7: A MOLUALDA BEACH 68 A HONAUNAU 27 HUNOHINA 137 HONOKANE 181 -1 A HONOMU MAUKA 138	1339 0 1492 0 1557 0 1562 0 1665 0 1701 0 1864 0 1960 0	2 AAU 1 N NOMALA 2 S HILO 4 N KONA 4 N KONA 5 NONA 2 N HILO 1 N NOMALA 2 S HILO 4 N KONA	2 19 43 4 19 38 4 19 37	155 50 155 04 155 55 155 59 155 53	600	8A 8A C 7A C ID MID MIDC MO 7A 7A 7A 7A MO	1	STATE OLV. OF PARES HAWALI NAT PARE KOHALA SUGAR CO U.S WEATHER BUREAU STATE OLV OF FORESTRY VARIOUS RANCH MANDS MRS MALAE W. HUA PEPEEREO SUGAR COMRANY WHALA OLTCH CO. LTO PEPEEREO SUGAR COMPANY WHALA OLTCH CO. LTO PEPEEREO SUGAR CO.
MOANALUA 770 MOUNT KALAL 844 NUUANU RES 4 783 NUUANU RESEVOIR 5 7754 OPAEULA 870 PALOLO VALLEY 718 PAUNA FLATS 784 PEARL CITY TERCE 754-1 PORTLOCK ROAD 724-4 PR1 WAHLAWA 820-2	6553 6928 6933 7150 7664 7810 7933	04 M 02 H 02 H 05 M 02 H 03 E 02 H	HONOLULU MATANAE HONOCULU HONOLULU MATALUA HONOLULU HONOLULU EMA HONOLULU	4 2 2 2 2 5 2 2 2 3 2 2 2 2 2 2 2 2 2 2 2	1 31 1 21 1 21 1 34 1 20 1 21	157 54 158 09 157 49 157 50 158 02 157 46 157 49 157 58 157 43 158 01	995 1640 240 6	7A M	9A IO AR 7.1 I		JOHN A ROXBURGH FEDERAL AVIATION AOM, BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY WAIALUA AGR CO LTO BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAMES MUMENO GEORGE L. BRENNER PINEAPRLE RESEARCH INST	HJALALAI 72 HUEHUE 92A  KAALA INI 12 NAAWALOA 29 KAHIAWAI 3+4 KAINALIU 73B KAMAOA NO 2 5	2151 0 2156 0 2249 0 2327 0 2512 0 2751 0	4 N KONA 4 N KONA	4 19 42 4 19 45 3 19 08 4 19 30 3 19 08 4 19 32 3 19 02 1 20 01 5 20 00 3 19 17	155 34 155 55 155 46 155 56 155 40 155 40	8190 1960 1340 1340 3700 1500 1375 2670	7A 7A WI 6A 6A 6A 6A	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	STATE OIV OF FORESTRY STATE OIV OF FORESTRY HUEHUE RANCH HUTCHINSON SUGAR CO CAPTAIN COUK COFFEE CO. RUSSELL P. SMITH KONN EXPERIENT STA HAWAIJAN RANCH CO PARKER RANCH HAWAIJAN AIRLINES
ST STEPHENS SEM 788 TANTALUS PEAK 780 TANTALUS 2 780.5 UNIV OF HAWAII 713 WAHIAWA OAM 863	8316 8600 8730 8738 8815 8945	02 H 02 H 02 H 02 H	COCLAULOA HONOLULU COOLAUPOKO HONOLULU HONOLULU VAHIAWA COOLAUPOKO HONOLULU VAIALUA	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 20 1 18 1 30	157 51 157 47 157 49 157 50 157 49 158 03 157 53	20 360 488 2000 1325 79 854 745 40 32		8A 8A 7A 8A 8A 8A 8A 8A 8A 8A 8A 8A		KAHUKU PLIN CO NAT MEM CEMETERY REV R CULLINAN BOARO OF WATER SURPLY R.E. WHITE DEPT. OF GEOSCIENCE WAIAHOLE WIR CO LTD WAIAHOLE WIR CO LTD HAROLD W BUTZINE WAIAHOLE OF CO LTO	KAROHO LANDING 935 A HAUMANA 88*1  KAWAINUI LOMER 193 A KEANU 92  KEAIWA CAMP 22*1  KEALAKEKUA 26*2  FEANAKOLU CAMP 124*2	3770 0 3872 0 3925 0 3977 0 4098 0	2 PUNA 2 S HILO 1 HAMAKUA 2 PUNA 3 KAU 4 S KONA 2 HAMAKUA	2 19 30 2 19 41 1 20 05 2 19 38 3 19 14 4 19 30 2 19 55 1 20 07 1 20 10 3 19 04	154 52 155 09 155 39 155 02 155 29 155 55 155 21 155 45	290 1123 1080 280 1700	VAR VAR WI BA BA BA BA WI 7A MO	E S E S E S E S E S E S E S E S E S E S	BOARD OF WATER SUPPLY SHIGEO MASUYA HONONAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COMPANY HISS AMY GREENWELL STATE OIV. OF FORESTRY HONALA DITCH CO LTO
WAIAWA 336 A WAIKINE 885 WAIKINI 717-2 WAILURE RESERVOIR 170 WAILURE VLY SCH 723-6 WAIMALO 794 WAIMEA 892 WAIPAHU 755 WILHELMINA RISE 721	9238 9261 9340 9397 9495 9500 9521 9593 9738	04 W 03 E 01 K 02 H 02 H 02 H 01 K 05 W 03 E	VATANAE VATANAE WA LOOLAUPOKO KONOLULU KONOLULU KONOLULU KONOLULU KONOLULU KONOLULU KOLAUROKO VATALUA WA KONOLULU	4 2 2 2 2 2 2 2 2 2 2 2 3 3 2	1 27 1 29 1 1 29 1 1 30 1 1 1 6 1 1 8 1 1 1 8 1 1 1 8 1 1 1 8 1 1 1 1	158 09 157 56 157 53 157 49 157 45 157 45 157 44 158 04 158 01	20 1575 800 760 10 170 180 6D 420 59	6A 6	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		CAPITAL INVEST CO CAPITAL INVEST CO WALANGLE WIR CO LTU WALANGLE WIR CO LTU WALANGLE WIR CO LTU WALAUGH STA CO LTO WANDOULLU ZOO WALAUGH SCHOOL ST OIL WIR LAND OEV WALAUGH ACR CO LTO W	KIPA 89+2 KOHALA 179A  KOHALA MAULILI 176 KOHALA MISSION 175-1 KOIAWE LOWER 196 KONA AIPPORT 68-3 KUKAIAU 222 KUKUIHAELE MILL 206 KULANI CAPP 79	4675 0: 4675 0: 4680 0: 4685 0: 4764 0: 4815 0: 4928 0: 4938 0: 5011 0: 5018 0:	2 S HILO L N KOHALA L N KOHALA L HAMAKUA N KONA HAMAKUA HAMAKUA HAMAKUA HAMAKUA L HAMAKUA S N HILO	1 19 04 2 19 44 1 20 13 1 20 14 1 20 05 4 19 39 1 20 02 1 20 07 1 20 08 2 19 35 2 19 35	155 09 155 47 155 48 155 38 156 01 155 21 155 35 155 36	960 537 720	7 A 8 A 8 A 8 A 6 A 6 A 8 A 8 A 8 A 8 A 8	K K H H H	JAME DIV OF FORESTRY  MANUNA KEA SUGAR CO.  COMALA SUGAR CO.  L LYMAN BOND  HONOCAA SUGAR CO.  MANIJAN AIRLINES  MANUNGA SUGAR CO.  MONOCAA SUGAR CO.  SUMOCAA SUGAR
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKA1 AP 524 PUUOHOKU RANCH 542+1	3046 3541 3547 4394 4778 6138 6190 6534 8549	01 M 01 M 01 M 01 M 01 M 01 M 01 M	OLOKA1 OLOKA1 OLOKA1	1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	1 12 1 1 04 1 1 06 1 1 06 1 1 12 1 1 09 1 1 08 1 1 09 1	156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06 156 44	30, 60, 12, 70, 560, 878, 20, 1075, 450, 700,	6 % % % % % % % % % % % % % % % % % % %	A IK	9	KALAUPAPA SETILEMENT  - J. CARSTEN  CARSTEN  MOLOKAI RANCH LTO  MOLOKAI GANCH LTO  CALIFORNIA PRO CORP  LE PO A  S P A  LONA AIRLINES  PUUDMOKU PANCH  HOLOKAI RANCH  HOLOKAI RANCH	LAVA TREE PARK 66.1 MANUKA 2 A 6 MAUNA KEA BEACM MAUNA LOA SLOPE OBS MIDDLE HOLUALOA 68.1 MIODLE PEN 147.1 MOAULA 18	5330 04 5460 06 5134 03 6180 04	N KONA PUNA KAU KOHALA HAMAKUA N KONA N KOHALA	1 20 01 4 19 40 2 19 29 3 19 07 1 20 01 5 19 32 4 19 37 1 20 06 3 19 11 2 19 33	155 58 154 54 155 50 155 50 155 35 1	2615 1530 650 1760 103 11146 475 1380 600 1530	8 A VAR MO	S S U U K K H	ITATE DEPL OF L + N RES- UNA EMPERIMENT STATION HATE OLIVE OF PARKS 1 S WEATHER BUREAU 1 S WEATHER BUREAU 5 WEATHER BUREAU 1 S WEATHER 1 S W

										011110												MAT 1967
STATION	INDEX NO. DIVISION	DISTRICT	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION	TI	ME A ABLE	S	OBSERVER	STATION	INDEX NO.	DIVISION	DISTRICT	DRAINAGE ‡	LATITUDE	LONGITUDE	ELEVATION	1	TAB		ORCEDVED
ISLANG OF MAKALI MARLEMO 18 MARDOMPOO 28 MAULU FOREST 38-0 MAULU 22-1 M	7204 01 1 7312 01 1 7421 03 1 7457 02 1 A 7643 03 1 7711 02 1	S KONA PUNA N KOHALA N HILO S KONA PUNA HAMAKUA KAU S HILO S KOHALA	2 1 1 2 2 2 2 4 1 2 1 1 2 1 2 1 2 1 2 2 1 2 1 2 1 2 1 2	9 28 9 19 0 01 9 16 9 34 0 03 9 12 9 30 9 22 9 47 9 47 9 47 9 47 9 49 9 49 9 49	153 35 155 55 155 65 155 08 155 45 155 17 155 53 155 20 155 22 155 28 155 28 155 08 155 08 155 08 155 08 155 08 155 08 155 08 155 08 155 10 155 28 155 28 15	395 1400 75 430 1270 445 415 800	7A 7A 8A	97/A67/A776 6M7777HA6MMO		HUTCHINSON SUGAR CO COMA EMPERIMENT STA COMA EMPERIMENT STA KOMALA SUGAR CO LAUPAHOPHER SUGAR CO HISBOR CE MATER SUPPLY PAUPHAU SUGAR CO HAMACH SUGAR CO HAMACH SUGAR CO HAMACH SUGAR CO HAMACH MILL CO HAMACH SUGAR COMPANY HAMACH SUGAR COMPONY FOR COMPANY HAMACH SUGAR CO PUMA SUGAR COMPONY HAMACH SUGAR CO PUMA	PUU LEHUA 73 PUU MALI 113 PUUGKUHAU 167 PUU O0.82 PUU WAAHAA 04-1 SADDLE ROAD 18- SADDLE ROAD	8460 8515 8548 8550 8555 8579 8780 8830 9025 9350	04 01 01 02 05 02 03 03 01 01 01		1 1 2 5 2 3 3 1 1 2 1 1 1 1 1 1	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 20 08 21 39	155 36 155 49 155 20 155 23 155 53 155 15 155 12 155 41 155 41 155 47 155 47 157 56	2520 2340 400 305 3420 1	8A	MO MO HO 7A 6A 7A WM H11 7A 8A 7A 7A 5P	c	STATE DIV OF FISH-GAME GREENVELL BANCH GREENVELL BANCH UNLATAN BANCH CO KOHALA DITCH CO LTD W. H. SHIPMAN LITD BOARD OF WTR SUPPLY HITCHINSON SUGAR CORP FURNALIAN BANCH CO U. S. COAST GURP SHINLCHI KANESHIRO KAHUA BANCH CLOSED 4/30/67  RICHARD COBURN MILNOR LUM
											MAUNA KEA BEACH	6180	04	S KOHALA	1	20 01	155 50	103	8.4	AB		U S WEATHER BUREAU

STATION INDEX

TORAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN S-NORTH-CENTRAL MOLOKAI: 1-(NO INTRA-1SLAND DIVISIONS) LANAI: 1-(NO INTRA-1SLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAI: 1-NORTHERN 2-ENSTERN 3-ENSTERN 
#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Bonolulu, Hawaii, or to any Weather Bureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are Temperature in 'F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant wind is the vector sum of wind directions and speed divided by the number of observations

OBSERVATION TIME. Data in the "Wontbly Extremee"; "Daily Precipitation" table; "Daily Temperature" table; and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Index. The Station index shows observation time in local evandand time.

EVAPORATION is measured in the standard Weather Dureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table Max and Win in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-bours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Hawaii state key numbers are included following station names in the several tables

STATION NAMES Hawaii state key numbers are included following station names in the several tables
DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates
- ++ Bighost observed one minute windspeed. This station is not equipped with an instrument to measure fastest mile data.
- · Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station mass in "Climatological Data" table, "Table, recipitation" table, and "Station lower", indicates amount carried in the "Total" column is for the period from last ensurement of a preceding month through the last measurement of the current month. See Pally Procipitation" table of this and previous bulletins for dates of measurement where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the proceeding month.
- H Adjusted to a full month.
- J "Supplemental Data" table
- N One or more days of recore missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage.
- T Trace, an amount too email to measure
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after rain
- C In Special Column of Station Index indicates Recording Rain Gage Station. However, the control of the "Bourly Precipitation Para" bulletin. If daily amounts are published in "Climatological Data" bulletin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Hourly Precipitation Data" bulletin.
- MO Gage read once montbly; usually on the last day.
- OC Gage readings at periode varying from a few weeks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervale, are published in the December issue, or as delayed data in the June imsue of this publication.
- SS Observation time is near supset
- VAR Observation time is variable
- WI Gage read weekly or irregulariy only.
- MM Gage read weekly and last day of month
- # Thermometer# are generally exposed in a shelter located a few feet above sod-covered ground; bowever, this reference indicates that the thermometere are exposed in a shelter located on the roof of a building.

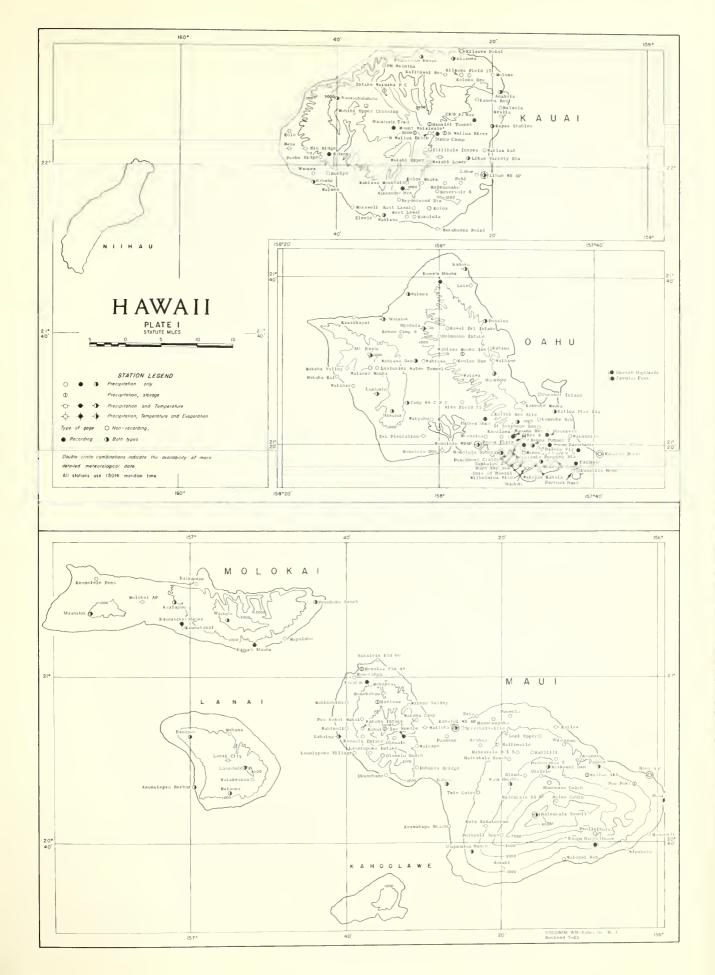
Stations appearing in the index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue,

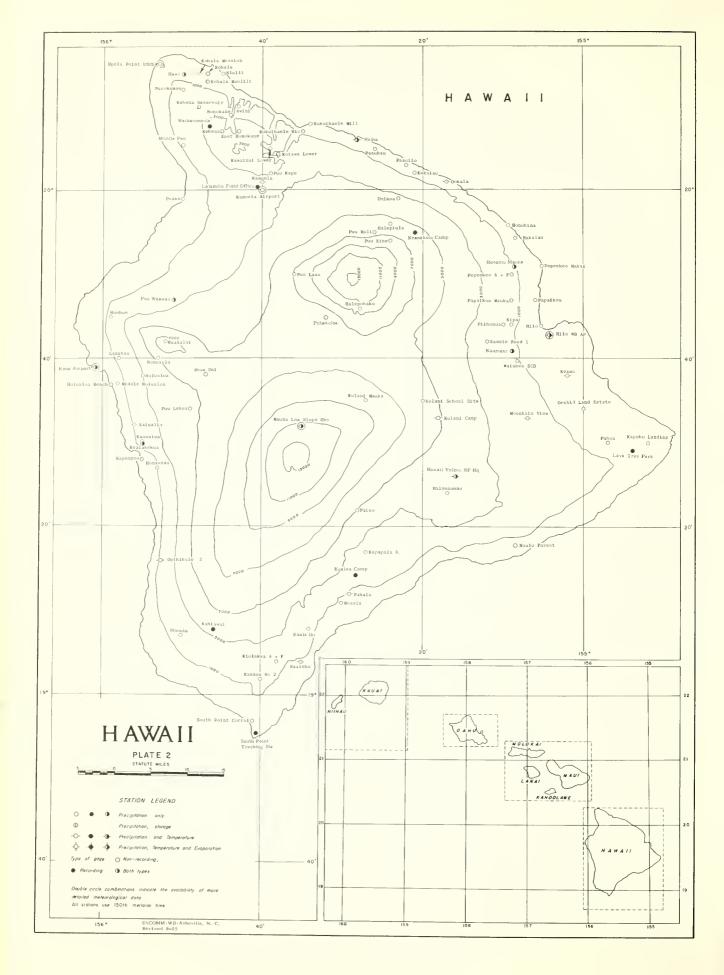
General weather conditions in the U. S. for each month are described in the publications WONTHLY MEATHER REVIEW, MONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documente, Government Printing Office, Washington, D. C. 20402,

Information concerning the bistory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Meather Eureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Documents at the address above above.

Subscription Price: 20 cente por copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checke and money orders should be made psyable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Document, Government Printing Office, %achington, D. C. 26402.

USCOMM-ESSA-ASHEVILLE-8/30/67-660











CLIMATOLOGICAL D

U. S. DEPARTMENT OF COMMERCE
ALEXANDER B TROWBRIDGE, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

AUG 6 1970

HAWAII

JUNE 1967

Volume 63 No. 6

# CLIMATOLOGICAL DATA

													1.	750			014	/				
					Tem	perat	ure							ECH.	4 8	CB	Mation					
Se 11					_							Days		-	>		Sno	w, Sleet		N		Doys
Statlan		Average Maximum	Average	Average	Departure From Normal	Highest	Dote	Lowest	Dote	Above Above	+	Min.	Total	Departure From Normol	Greatest Day	Date	Total	Mox. Depth on Ground	Dote	.10 or More	.50 ar More	1.00 or More
* * * ISLANO OF KAUAI																						
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A	72.5	51.9 72.6	62.2 78.5			24		20	0	0	0	1.48 1.47 1.18 1.97	17 - 3.08	•71 •61 •40 •42	2 4 2 28 28+	.0 .0 .0	0 0 0		3	1 2 0 0	0 0 0 0
KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	82.9 87.0	71.2 67.8	77.1 77.4	•5 •7		24÷ 30÷	65 64	3 9	0 2	0 0	0	2.57 2.09 .69 8.54 2.49	- 1.12 .63 .05	.86 .60	5 2 28+	.0 .0 .0	0 0 0		3 1 5	2 1 2	0 0 0
PUEHU RIOGE 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	A	82.2	62.8	72.5		85	22+	60	30+	0	0	0	.40 .34 5.21 .29	98	.34 1.47 .10	2 5 2+	.0	0 0 0		11 2	0 0 3 0	0 0 2 0
ISLAND  * * * ISLAND OF DAHU				73.5									2.09				•0					
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU DAM 833	R	87.1 83.8M 83.1	72.2 69.5M 70.6	79.7 76.7M 76.9	1.8 .0 1.0	85	22+ 26+ 25+	68 64 68	13+	3 0 0	0 0 0	0 0 0	1.19 2.43 4.37 4.09 9.06	2.10 2.96 1.15	.80 2.00 2.50 1.78 2.43	30 29 29	.0 .0 .0	0		3 2 6 12	1 3 3 6	0 1 1 1 3
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RE5 4 783 OPAEULA 870 PALOLO VALLEY 718		82.0 82.3	73.3	77.7	2.0		14		29+	0	0	0	1.56 1.76 3.42 2.82 3.34	1.26 - 3.73 .22 - 5.45	.93 .92 .94 .98	30 30 2	.0 .0 .0	0		3 9 8 9	1 2 2 2 2	0 0 0 0
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA DAM 863 WAIAHOLE 837 WAIALUA 847	A A	84.7	64.9	74.8	.6		23+		13	0	0	0	2.94 7.71 3.70 8.02	.02 .23	2.68 3.02 .87		.0 .0 .0	0		1	4	2 3 0
WAIKIKI 717.2 WAIPAHU 750	A	88.2	70.4	79.3		92	18	65	13+	10	0	0	.75	.88	.45	30	.0	0		3	٥	0
ISLANO	-			76.8									3.51				.0					
# # # ISLANO OF MOLOKAI																						
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	A	8											1.26 3.23 1.12	.59 1.04 .37	.81 1.67 .62	29	.0	0		5 3	1 2 1	0 2 0
ISLANO													1.87				.0					
* * * ISLANO OF LANAI																						
LANAI CITY 672		78.7M	65.0M		1.8	82	23	61	2	0	0	0	2.36	.94	1.38	2	.0			2	2	1
ISLANO  * * * ISLANO OF MAUI				71.9									2 8 3 0									
HALEAKALA B E S 434 HALEAKALA RS 338 HANA ATRPORT HONOKOHUA 493 KAHULUI WB AP	A A R	65.5 85.8 86.7	46.5 70.2 67.7	56.0 78.0 77.2 73.1	.0	90	19 23* 22 19*	66	25+ 11+ 11	0 0 1	0 0	0 0	4.64 2.66 6.14 1.17 2.50	51 2.32 - 1.92	1.74 .94 2.40 .39 2.22	30 29 30 29	.0 .0 .0	0 0 0		8 4 10 2	4 2 3 0 1	1 0 2 0 1
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	A	72.4 88.8	58.8	65.6	.7	78	28	55		0 9	0	0	9.90 6.00 3.92 .57	- 3.87 - 1.76 2.23 .51	.45	30	.0	0 0		12 3 2	2 2 0	1 1 0
PAIA 406 WAILUKU 392		м	М м	M							0	0	1.37	•18	• 83	30	.0	0		4	1	0
I SL ANO				71.2									4.05				•0					
										1						-			ŀ	[ ]		

## CLIMATOLOGICAL DATA

HAWAII JUNE 1967

CONTINUED																		JUNE	:		967	
					Terr	pera	ture									Preci	pitotion					
										٨	lo. of	Days					Sno	w, Sleet		N	lo. of	Doys
Station		Average Maximum	Averoge Minimum	Average	Deporture From Normal	Highest	Date	Lawest	Dote	Above W	-	35° or Below	Total	Departure From Normol	Greatest Day	Dote	Totol	Max. Depth an Graund	Dote	.10 or More	.50 or Mare	1.00 ar Mare
4 # 4 ISLAND OF HAWAII																						
	R	84.8 70.7 85.2	65.7 54.6 69.7	75.3 62.7 77.5	2.3 .7 3.2	88 76 87		62 49 67		0 0 0	0 0 0	0 0 0	1.72 4.58 6.26	.05		28	•0	0		8 16 16	0 0 3	0 0 2
KAINALIU 738		79.2	63.0	71.1		83	22	61	12+	٥	0	0	8.32	•37	1.54	23	•0	٥		15	8	1
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1 KONA AIRPORT 68.3	A	75.5M 84.0 79.5	59.3M 66.1 64.9 70.9	67.4M 75.1 72.2 77.3	1.4	78 87 82	23+ 1 13	51 63 63	6 12+ 10+	000	000	0000	.64 7.66 5.88 2.76	20	1.60 1.28 1.25	25 29	•0	0 0 0		2 17 11	0 4 3 2	0 2 1 1
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107	A	64.5 88.2 80.8	48.6 71.1 63.6	56.6 79.7 72.2	.0	95	18 21 25	39 53 60	26	0 8 0	000	0000	2.30 2.50 2.78 5.25	3.92	1.77 1.02	2	•0	00000		8 4 10	1 2 5	0 0 1 1 0
PUAKO 95A PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCD 88.2											ŀ		.85 6.05 2.96 9.00	3.93 1.26		30	•0	0000		3	0 5 1 6	0 3 0 2
ISLAND			i	71.6									4.00				•0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 95° ON THE 21ST AT MAUNA KEA BEACH, HAWAII

LOWEST TEMPERATURE: 33° ON 9+ AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 16.06 INCHES AT PIIHONUA 89, HAWAII LEAST TOTAL PRECIPITATION: .14 INCH AT HALEPOHAKU III, HAWAII

GREATEST ONE-DAY PRECIPITATION: 5.60 INCHES ON THE 30TH AT HANA 354, MAUI

#### SPECIAL WEATHER SUMMARY

June was an unusual month in that many monthly and 24-hour precipitation records were broken on Oahu and Kauai.

Mainly responsible was a combined surface and upper-level low pressure system which ushered in a period of frequent heavy showers and southwesterly winds. This occurrence, quite unusual during this time of year, accounted for most of June's precipitation at many stations. Several stations on Maui and Oahu recorded 24-hour amounts in excess of their record monthly totals. In spite of these record amounts other areas recorded precipitation amounts far less than normal. Kauai, in particular, was drier than normal which resulted in a rather extensive brush fire in the usually wet Hanalei area. Precipitation was only 18 percent of normal at Princeville Ranch, Kauai. The saddle area of Maui received heavy precipitation, while along the northeast coast precipitation was rather light. Amounts on Oahu and Hawaii were variable and the weather was warmer than normal.

Kahului, Maui, whose 11-year mean for June is 0.14 inches, recorded 0.29 inches in 5 minutes, 0.56 inches in 10 minutes and 0.76 inches in 15 minutes during a heavy shower on the night of the 29th. Heavy showers moved northward over Maui and were primarily responsible for the unusually high June totals on that island. At Kipahulu, Maui, 3.37 inches fell in 24 hours, breaking the 51-year

record of 2,93 inches. The 2,66 inches at Waiopai Ranch broke the record of 1,66 inches dating back to 1897.

Similarly, on Oahu during this storm, many new precipitation records were set; outstanding was the 2.07 inches in 24 hours at Moanalua which exceeded the 62-year record of 1.96 inches. Kahuku Plantation recorded 1/2 inch from 10:15 p.m. to 10:27 p.m. on the 29th. On the 3d, Camp 84, west-northwest of Waipahu, recorded 0.70 inches in 10 minutes and 1 inch in 20 minutes. The former figure has a recurrence interval of 2 years. Although the 2.43 inches for June at Honolulu International Airport was far above the 20-year mean of 0.20 inches, it was of a warm Twenty-four days had a trace of rainfall or less and an all-time high temperature for the month of 91° was set on the 17th and equalled on the 22d.

Moderate to heavy rains which fell in the Waianae, Wahiawa, and Kipapa areas on the 3d, caused some damage to leafy crops. Strong winds during the 24th and 25th caused some bruising to crops in exposed areas on Oahu. Irrigation demands were heavy, and in the Waimea, Hawaii, area a restriction on the use of water for irrigation purposes was put into effect the week of the 17th. The east Maui regions from Haiku to Hana were extremely dry during the first 3 weeks and papaya orchards were given irrigation not normally needed.

Russell Dorr Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

		_													Dav	of M	onth														JUNE		196
Station	Total	1	2	3	Т	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SLAND OF KAUA1		+			+	-						10			-		-		-														Ė
AMOLA 1111 A YOES=000 STA 985 A ST LAWAI 934 A ELEK 927 A LAULA 1110 A	1.4 .9 1.0 .5	0 0	1 .0	21 05 *			.02	.13 .13 .32 .01	7	•01 •02	.03 .02 .09	*	* *	.15 .06 .16 T	.17 7 .07	T .09	T	т			.08		.03 .03 T		.03	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	.15 .30 .21 .10	.01 .07 T	.03 .13 .11 T	•01	т	
LENANAHO 1006 A XIPO 945 IILIULA INTAKE 1050 TAKE WAINIHA PC 1086 A LIHIWAI RES 1131 A	3 • 2 • 3 6 • 3 2 • 3 2 • 5	0 .01 B .2	, .0	6 1.4	90		1.65 1.15 .10 .89	.16 .07 .20	.05	.24	•06 •12 •06	. 35	.15	.30 1.00 .56	.08					.06	.03		.05		• 01	.10	.20 R	.14 .35 .52 .32	.10	.44	.06 .10 *	•02 •40	
NALOHULUHULU 1075 NEHA RESERVOIR 1092 A PAA STABLES 1104 A ALIA 1112 A	1.4 3.6 1.1 1.2	.04	9 1.1 •4	0 8		* 61 *	•38 •10 •03	.12	.03	.15 .22 .04	.05	*	*	.06 .72 .10	.05 .03 .25	•11			•		.16		.04 .09 .07		.06	*	.02	.25 .18 .06	.04	•10 •03	•05	.04	
AUEA 1134 A AUEA FIELO 17 1135 A AUEA POINT 1133 OA 936 A	1.9 1.9 .5 .7 2.5	0.00	.5	0 *		:	.06 .14 .05	.03 .19	•02	.02	.02	.06	.06	.22		.02					.02		.03		.06	.07	* 13	.26 .36	.03 .01	•13 •42 •13	.05	•01	
0A MAUKA 994 A 0K0 RES 1137 A U1ULA 935 A UE VARIETY STA UE 1020 A	3.7 2.1 .6 3.3 3.3	3 .41 3 T	.0	2 1.	1	*	2.14 .18 .81 I.63	.65 .09 .20 .20	.05 T	.02 .04	.06 .03 .05	.08	* * *	.23 .53 .11 .18	*01 T	.04	.05			.10			.06 .03		•03		*	.33 .28 .15 .10	.05 .04 .01	•11 •15 •07 •24 •06	.11 .05	.05	
UE WB AIRPORT RAHUENA POINTAWELL 965 A A 1026	2.0	04	0	2	07	.08	.86	.07	.01 .02	r =04	.08 .01	T .08	T _	.03			-		_	_					_	•01	.05 .03 .01	*02 -	.04 .08	.03 -	•01		
DAA 1145 A RIOGE 1035 NILUA OITCH 1051 WAINIMA 1115 NCEVILLE RANCH 1117	1.6 .4 8.5 2.4	.01	. 1	8 *		n 4	.08 4.59	.29	.06	•27 •03	.17	* .18	.08	.12 1.11 .05	.02								.02 T			. 12	* •05 •18	.07 .98 .09	. 24 T	•14 •59 •72	.06 .05		
NU R10GE 1040 . 1013 A RVOIR 6 1004 A AWA 930 A AWA MOUNTAIN 990 A	2.7 4.5 .3 6.0	.03	.7	6 8			.99 2.48	.65 .40 .03	.03	.05 .05	.04 T		:	.14 .25	.01 T						.02		.06 .04 T				*	•12 •30 •14	.01 .02 .02	•11 •03	.15 .03	6.00	
HH LOWER 1054 HH UPPER 1052 HWA 943 UA KAI 1065 A	5.2 3.8 .2 2.0	.06	.2	8 .	41	.95 .45	1.05	.14 .15	.01	.02	.11	.08	.04	.11 .35					.02	.04 .01			.06 .01			.03	.04	.36 .40	.02	•23 •43	.10 .07		
LAWA1 931 A	.9	1	2 .0	15				. 44		.02	.07			.02												*	•	•16	.04	•07	Ť		
A FIELO 625 761 A TANIA PUMPING STA P 84 C P C 807 A RCH COLLEGE LAIE NUT 15LANO 840-1	1.6 .8 4.7 4.2 3.2	T .1:	. Z	11	32		169 3.65	.12		.08	.01 .11	.07 .01	•	.04	.03			.09				т	T .01	•03			* •17 •03	•05	.05		2.08 1.73	.44 .18 .82 .93	
PLANTATION 741 HANO INTAKE 881 A JUDA 725-2 A DULUU OBSERV 702-2 JULUU WBAP 703 R	3.9 3.0 1.1 2.4	.50			10	.19 e .26	2.03	*			.02	7	.01	T	:	:	:	:	:	:	2.70	:	:	.OB	* *	:	T *	*17 *	# #	: :	.48 * .01 .28	.15 # .98	
LULU SUBSTA 704 PA EXP STA 707 NA 883 A KU 912 UA FIRE STA 791.3	1.6 .9 12.0 4.3 3.1	3	.3	4 .0	02		2.14	.01			.07	.04	T	.97				* 11			2.08					:	# # # # # # # # # # # # # # # # # # # #	.02 .76	.02 .07		.05	1.21 .15 6.13 .72	
H1 RES SITE 777 OHE MAUKA 781 OHE RANCH 838 LAMA 773 LHAPA1 841 A	6.6 4.0 6.1 2.3	. 24		2 1	24		т	.04 .02 T	• 08	.04 .05 .15	.30 .02	.14	.34	. 27	T			.07					.01	.16			•12 •01		.46 .15 .18	.62	.88 1.78 4.20	2.10 .95 .75	5
1 IK1 1NTAKE 880-2 A 0 CAMP 8 855 AU 0AM 833 UALEI 804 UALEI WTR TUNNEL A	7.0 1.0 9.0 1.5 7.3	.01	1 .0	3 .0	05 2		.03	.03			.70	.02	.07	*			#	.24	•	• 3			•	e •05	.03	.15	.05 .20	.24	.01	.52		7.00 .18 1.00	
L1LO MOME 724.2 MA KAI 796 MA VALLEY 800.1 PUU POINT 724	.3 .4 1.7	3 .04	•1	19			.01		ĺ			.03		.01	•	•	•		•	•	•	•	•		2.00		•	*	.02		.03	.12 .39 .30	2
A 712  A TUNNEL 2 716  ALUA 770  NU RES 4 763  NU RESERVOIR 5 775 A	3.4 2.8 3.4 3.5	.02	.1	2 05 •	١,	.45	.03	.06	.02	.12 .01 .12 .07	.10 .38 .08 .28	.14	.08	.04	.02								.08				.02 .30 .04 .32	T •39	.30	•26 •11	.01 .22 .07	1.86	
ULA 870 LO VALLEY 718 A FLATS 784 LOCK ROAD 724.4 WAHIAWA 820.2	2.8 3.3 5.4 1.7 2.9	.03	2 1.1	2	10	.02	2.65	.02 .04	. 16 T	.04	.02 .28 .52 1.30	. 14	.06	.02	•01 T			•02					.04	.01		• 01	.05 .16 .48	.08	.10 1.02 .94 .02	•17 •48 •32	.28 .34 .14	.22	
HBOWL CRATER 709 A TEPMENS SEM 788 ALUS 2 760.5 OF HAWAII 713 A	7.7 1.4 6.9	.00	.0	1 .	29		-01	.04	T #	• 06 # T	.08 .02 .06	.01	.01	. 20	.19	.01		.07					T	.02		T .		.05	.30 .08 .17	.32 *	4.31	.28 1.20	
AWA OAH 863 HOLE 837 A LAE KAHALA 715 LUA 847 A NAE 798	8.0 .5 .9	2	. 6 T	0 *	03	o T	.03	. 12			.02 .12	.16	.02	.71				3.02					1	•02			•06	.19	.06 .13	.03	1.49	.48 1.12 .28 .87	
NAE MAUKA 803 A NA 836 A ANE 885 A 1K1 717.2 UPE RESERVOIR 170 A	3.9 5.5 9.1 .7 1.6	8 * 8 * 8 * 8 * 8 * 8 * 8 * 8 * 8 * 8 *	.5		15		e 2.73		1.25	e e e	1.86	.10	:	. 40		. 36 e e	e e .30	* 78	.03	:	e 2.06		.01	.03	.07	•03	*	* .34 .03	:	•11	.01	2.30	
MANALO 794 A  1EA 892 A  1AHU 750 A  1ELMINA RISE 721	3.4 1.5 1.4 1.1	2 T	.1 2 T				.01 .07 1.37		.01		.01 .06 T	.10	.30	.03	.02		.02							T				Ť •05	.08	Ť •42	•37	2.40 .43 .09	

See reference notes following Station Index

	Continued		,														. 1 1	A	TI	Or	V											HAWA:		1967
	Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	Day	of N	Ionth	16	17	18	19	20	21	22	20	04	05	00	0.00				
	ISLANO OF MOLOKAT																		10	17	10	13	20	- 21	22	23	24	25	26	27	28	29	30	31
	KALAUPAPA 563 KAUNAKAKAI 536 KEONELELE PENS 551 KUALAPUU 534 MAPULEMU 542	A A	1.40 1.88 2.12 1.26 3.23	*	.3		3	2.00		:	*	:	:	.11	:		:	*		:	:	•	*	:	:	*	:		T * *	.40	:	1.03	.81	•
	HAUNALOA 511 HOLOKAI AP 524 PUUOHOKU RANCH 542+1 MAIKOLU 540	A	2.74	:	• 2	7 .6	2	1.54	:	:	.06	:	:	:	.04	* 06	:			:	.01 - .08	* .06		:	:	:	:	-08	• 66	.22			2.00	•
	ISLANO OF LANAI  (ANEPUU 690 (AUMALAPAU HARBOR 658	A	3.47 1.54		• 1	, .	:	* 15			.18																					•07	1.53	
ŀ	ANA1 CITY 672 ANAIHALE 684 HAHANA 694 HALAUEA 676	A A	2.36 3.51 2.65 2.70	.69	*	.0.	2 *	.07	:		1.31								:	:	:	*	:	*01	.04	:	*	:	:	:	:	.05	•91 •77 1•47 2•65	•
١	MATAKEAKUA 685	•	2.94	* "		:	:	1.63	•		1.25																			•		*	.73 1.31	:
,	MUWAH1 =252	A	2.22	.57	.47	,		.30								.88																		
+	MALEAKALA B E S 434 MALEAKALA RANCH 432 MALEAKALA RS 338 MALEAKALA SUHMIT 338.4	Â	2.91 2.66 2.67	.06	•64 •61 •40	Į.		•02			Ŧ		.03			.03			.08	. 15	Ť						.03	•39 •03	•24 •16 T	.56 *	*17 # T	•66	1.48	•
+	ALIIHAILE 423 AMMAKUAPOKO 405 HANA 354 HANA AIRPORT HANAHULI 281		2.98 2.69 8.71 6.14 6.06	T	• 26	•				.05 †	•56 •10	.01 .16	.03 .05	* .15	.06	T	T	.03	.11	* <sup>01</sup>	.03	Ŧ		•06			* •03 •27 •22	.35 .05	.20 .10 .11	.24 .25 .09	.09	.38 .10 1.80 2.40	5.60	:
	IOLUA CABIN 259,5 IONOKOMAU 480 IONOKOMUA 493 IONOMANU GULCH 341	A A A A	3.46 3.30 1.17 4.20	.29	• 02		:	:	:		*	.69	*	:	.28	.01		.19	* *	T	.04	:	:	.14	T .08	T .	***	****	:11	.13	.02	2.32 * *	2.77 3.30	•
K	AHUMUI WB AP AILIILI 436 AILUA 446	R	2.50 5.79 5.65	.09	1.45					* .08	* * * * * * * * * * * * * * * * * * * *	.01	* * * * * * * * * * * * * * * * * * * *	.02					.06		* 17			.01	*	Ţ	.01	.04	* T * .21	T .	.02	2.22	.20 5.79	:
K K	AÙAÙLA INTAKE 375 EAHUA 410 EANAE 346 EAWAKAPU BEACH 260.2	A	.58 1.39 9.90 2.93		.01								T n		.03							.06						*	.05 T	.04	T	• 02	1.32	
K	IMEI 311 IPAHULU 258 ULA HEIGHTS 323.2 ULA SANATORIUM 267		2.13 6.00 2.62 3.92	.04	.72		.02	,		.07	.06	.15	.13			.10		•13	•20	•14	.04			-14		.04	•22	.15	.05	.18		7 3.37 .60	1.27	
L	AMAINA 361 AUNIUPOKO INTAKE 376 AUNIUPOKO VILLAGE 372 UPI UPPER 442	Â	.57 2.00 .50 6.30		.12															.06													2.65 .45 2.00 .50 6.30	•
0	AHINAHINA 466 AKALELE -FLO 60-497 LINOA 332 LOWALU 296 LOWALU GULCH 377	A A A	1.03 .95 2.69 .80	.01			:	•03	# T				.04		•07				Ť	•21	.01	т	•			•	•	.08	•23 •03 •01	.19 .01		* •95	.20 .82 1.01	
P P P	AAKEA 350 AIA 406 ANILEIHULU 259°2 AUWELA 490		11.50 1.37 8.90 3.06							.10	•62	.36	.87					.04		•	.19	*	.08	.10	.09		.26	.76	.26	.13	T	2.19	8.90	•
P P P	OHAKÉA BRÍOGE 307.2  OLIPOLI SPRINGS 267.2  UOHOKAMOA 2 343  UU KUKUI HAKAI 472  UUNENE 396	A A A	1.93 1.95 13.00 1.60 2.15	.02	.01	:	:	:	:	•91 •	:	:	:	:	:	:	•71 *	:	:	:		.02		:11	:	:	: .	:	.68	.46	• 10	* 1 1.60	1.90 * 3.00	•
5	PRECKELSVILLE 400.2 WIN GATES 261.3 KULELE 333 KUMEHAHE 301	AAA	3.10 1.22	:	*	:	:	:	:	*	:	:	.01	:	:	:	:	:	:	:	:	*	:	:		:	:	.05 *	.10	.03		.02	2.08 1.32 * 3.10 1.20	:
*	LUPALAKUA RANCH 250 AMIKULI 364 AIEHU CAMP 484 AIMEE VALLEY 482	A	5.33 .28 1.11 1.58	.36	.68	.07						• 06	.09		.03					.09									•03	.02	•02	•09	3.96 .25	
W	AIKAHOI 449 AIKAMOI OAM 336 AIKAPU 390 AILUKU 392	A	7.10 8.26 1.66	T •46	.62	•	:	.09	Ť	# T	.08	.02	.65	.01	.04	.46	.02	T T	.62	.25	.02	Ť	Ť	.06	.02		.26	* * * * * * * * * * * * * * * * * * * *	•62	1.23	•50	.67	7.10	
	Alopai Rañch 256 * * * ISLANO OF HAWAII	^	2.66									ì						1												1	•	* ;	2.66	
E H	HUA UH1 75 MINI 182•1 AST HONOKANE 183B AINA 214 AKALAU 142	A A	1.30 4.54 5.62 1.72	.72	* • 01		•	•		.02	.01	.09	*		.19	* *01 *50		.38	.01	*	.14	.48	.03	.30	.01	.02	.10	* * * * * * * * * * * * * * * * * * * *	.34	.16	.58 e	•52	5 • 62 • 17	:
H.	ALEMAUMAU 52 ALEPIULA 117 ALEPOHAKU 111 AWAI1 VOLCNS NP HO 54	AAA	2.45 3.93 .14 4.58	.21	* *	* •08 •03	.20	:	.03	.10	.50	.02	.02	:	.68	* .05 .40	.02	.12	.17	.02 .01 .12	.09	*	:	.06	.12	.38	.21	.26	.38	.65 * *	.47	• 35	2.45	•
H	AWI 168 ILO WB AIRPORT DLUALOA 70 DLUALOA BEACH 68 DNAUNAU 27	A R A A	1.67 6.26 3.50 2.40 6.82	•03	* + 22	.01		.02 * .05	.02	.01 .44 .60	.15	.01	.11 *	.07	.70	.05	.10	.05	.40	.03	* T *	.07 .01	.04	.14	.04 .03 .40	.02	.49	• 13 • 15	• 62	.41	•		3.50	•
H	DNOHINA 137 DNOKANE 181.1 DNOMU HAUKA 138 DNUAULA 71	A	3.36 12.31 3.00	.02	.12		.70		.02	.07	• 35	.06	.40	.06	.33 .13 .40	.14	.03	.03	.07	.02	.08	.23	.01	.06 .31 .24	.25 .29	.09	.48	1.02	.76 .51	.05 .71 .49 .87	•22 3.75	.44 .71 .80	.07	•
HI HI	JALALAI 72 JEHUE 92A AALA IKI 12	Â	7.79	.03	1.00	.02	.68	.10	1.02	- -18	.08	.05	-	:	-	.30	* -	:	.77	.50	.70	.01	-	.40	• • 71 • 12	.01 .51	• 02	* - •01	.66	-	.01	.20	.55 T	•
K	AAWALOA 29 AINALIU 73B MMAOA NO 2 5 AMUELA 192.2	A	5.97 8.32 3.35 .76	:11	.16 .23 *	67	T 1•07	.51	.08	* * *02	.89	.02	.48	.24	.02	.35	.05 *	•	• 02	.51	• 17 2 • 28 • 07	.91		.01	.12				• 05 •	.05	.89	•56	• 02	•

See reference notes following Station Index.
- 65 -

Continued	_																														JUNE	
Station		otal													Day	of M	onth															
Station		To	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
AMUELA AIRPORT AFAPALA RANCH 36 APOHO LANOING 935 AUMANA 88.1 AMAINUI LUMER 193	A A	5.34 5.89 10.23 9.79	.27 .70	.05 .62 .13 2.80	.02	.26		.03	06 •06	T e .26	.30 1.27 .05		* •21	T .	.05 1.00	.05	.42	.03 1.79	.70 .40	.71	:	.30 .01	.03 .70 .22	.08	* •04 2•05	.50 e .24	* 33	* •53	7 9 .36	T 3.64	1.01	.07 .85 2.21 .18 3.48
EAAU 92 EALAXEKUA 26.2 EMENA 181.2 EMENA RESERVOIR 176.1 IOLAKAA A + F 6	A A A	7.66 5.88 3.60 2.76 5.77	.10	.07 .16	.38	. 23 .e	.35	.02	.26	1.17	.33	.07	.35 •	.10	.02	.°°1	.27	•21 •02	.19	.31 .29 *	.04		.13	.09	•11 •40	.58	.51 1.28	•32 •05 •	.51			.07 T 3.60
IPA 89.2 DHALA 179A DHALA MAULILI 176 DHALA MISSION 175.1 DIAWE LOWER 196	A A A	11.23 2.76 2.15 2.75 6.90	•56 •37 •37	.27 T 2.65		. 35	٠	т .	.14 .02 .07	.31	.11 .01 .03 .05	.09	.03	T •13 •09		.03	.07	.04 .19 .34 .45	.30	.40 .10	•15 •10 T	T e	.23 .13 .19 .14	.09 .09 .02 .08	.03 .06 .05 .03	.27 * T	.79 * *		.35	.26	.11 .06	.29 .04 T
ONA AIRPORT 68,3 UKAIAU 222 UKUIHAELE HIC 199 UKUIHAELE MILL 206 ULANI CAMP 79		1.80 2.89 2.30 1.89 2.50		.25	.10	.50	.06	. 25	.04 .05 .05	.53 .01 .02		.04	.06 .10	.07 .03 .02		•02	.02 .23 .08 .03	•07		.03 .12 .18	•09		•03 •10 •02	.05 .02 .03 .08	Т	.04 .08	.05 .60 .06		.53 .15 .07	.74 .05 .06	.01 .05 .41 .12	•11 •06 •10
ULANI MAUKA 76 ULANI SCHOOL SITE 78 NIIHAU 68 C NUKA 2 AUNA KEA BEACH	A A	3.29 4.48 8.61 6.11 2.78	.07 1.42 .02	.40 .89 .03	.83	.18		.04		.08 .47 .35	.80 .10 1.95	.02		1.23 #		1.97 .35	•	.09	.99		.20	٠	.55 .15	• •05 •20	•02 •12	.05 #	.54 .8	.09 .98	.10		1.30 .02 T	
AUNA LOA SLOPE 08S 100LE MOLUALOA 68.1 100LE PEN 147.1 0AULA 18 0UNTAIN VIEW 91	A	1.84 4.66 1.58 2.75 9.60	.79 *	.05	:	.58	T .29 •	.08	•12 •20 •	.22 .50 .63	.05	.51	:	•71 •	.04 2.10	.04	.19	.03	.30	* * •52	•29 *	.10	.27	.23 	.34	.64	.40 #	*02 * *	:	.93 .58 *		2.75 .21
AALEHU 14 APOOPOO 28 AULU FOREST 38,6 IULI1 179 OKALA 223	A A	3.40 2.94 4.05 2.13 4.51	15 •15 •16	.26 .37	e T	.47	.20 .45 .02	.04	.01 .01	.15	.02	# T #		* *10 *16		T #	.02	.57 * .35	.29	.06 .08	.01 .29	•05	.05 * .01 .12	.11 T .14	.02 .01	.06	.09	1.47 .04 .43 1.01	.12	.07 .52 .31 1.26	.51 .39 .10	.62 .07
PIHIHALE 2 24.1 HCHID LAND EST 91.5 AAUHAU 217 AAU1LO 221 AHALA 21	A	6.54 8.06 1.52 2.15 5.25	.01	1.83	.16	.39	•	T *	.02	•21 • •01	.02 1.77	.02	,03	.04	*21 T	.10	16 •02	.02 .96 .01	.26	.61 .10 .04	.02	T *	.05 * .03	.26	.02	.10 .04 .04	• 38 • • 22 • 45			.78 • •14 •43		7 3.50 •13
AHOA 65 AKAO 37 APAIKOU 144A APAIKOU MAUKA 140.1 EPEEKEO MAKAI 144	А	8.40 6.10 7.79 11.26 6.72	.04	•	•	.48 .32 .56		.02 T T	.25 .09 .05	1.36 .47 .58	.17 .27 .06	.27 .50 .36 .40	* T •12	.01		•02 • T	.32 .32 .15	.18 • •11 •05 •37	.08	.47 .18 .53	*	.03 .05	.10 .10	.03 .11 .03	•30 •18 •15 •20	.56 .20 .30	.49 1.12 .90 .53	.55	• •22 •96	1.16 2.49 2.75 1.38	.47 1.00	.03 6.10 .12 .39
IIHONUA 89 OHAKULOA 107 UAKO 95A UU KIHE 120 UU LAAU 102.1	A A A	16.06 .62 .85 2.46	.33	.09 .23	.22	• 02	:	0 9	:		.53	:	:		•	:	:		:		:		:	.05	*		:	:	:			2.46
UU LEHUA 73 UU MALI 113 UUUKUMAU 167 UU 00 82 UU WAAWAA 94.1	A	2.85 1.77 1.77 4.37 6.05	.50 .20 1.67	.55 1.10	.10	.47	.04	.03	.07	.35 .72	.09	.01	*	.07 .02	.30	.01 .02	• •02 •03	.02 .13	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * *07	:	.23	:	:	* * *	* * * * * * * * * * * * * * * * * * * *	.36 .14	.27 .12	* •05 •21	* •17 •61	2.85 1.77 .01 .37 1.15
AOOLE ROAO 1 84 OUTH POINT CORRAL 3 MIKOA 118 POLU POINT USCG 159.2 ALAKEA SCD 88.2	A	20.77 1.26 2.96 1.65 9.00	* •29 •73		:	.52	•	.19	.32	.10	.37	.54	.04	.0	.37 T		.24	3.73 .06 .11 .03	.01	.70 .01	* * * * * * * * * * * * * * * * * * * *		.08 .23	.09	1.62 T	.02				.17 .11 1.68	** •12 •14	.96 .11

## SUPPLEMENTAL DATA

		(	Wi:		.)		Relati	ve hum		rages -		Num	ber of d	lays with	precip	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 Am	TH MERI	DIAN TI	ME 8 PM	Trace	-10	1049	-96.—05	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO. HAWAII. WR AIRPOPT	16	1.7	7+0	19	Ε	30	81	69	61	77	3	9	13	1	2	0	28	42	7.2
HONOLULU. OAHU. WR AIRPORT	6	7.0	9 • 2	28	NE	27	63	57	52	59	10	4	1	0	0	1	16	72	4.3
KAHULUI: MAUI: WB AIRPORT	5	9.0	11.0	30	NE	25	81	73	55	75	3	4	1	0	0	1	9	78	4.7
LIHUE. KAUAI. WR AIRPOPT	6	6.3	9.0	2.5	ε	25	79	71	67	75	5	7	1	2	0	0	15	78	5.2

									_			-	<b>U</b> .						_												JUNE		1967
Station		1	2	3	4	5	6	7	8	9	10	11	12	13			Of M		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Āverage
* * *				1														1	-				-						-			-	A
ISLANO OF KAUAI																																	
KANALOHJLUHULU 1075	MAX MIN	69 54	68 54	71 54	72	72 56	72 56	75 53	74 58	74 54	73 52	71 55	73 53	71 48	69 46	73 48	73	74 46		74	73 43	73 51	75 48	75 56	76 53	74 56	72 58	69 53	71	70 49	74 48		72.5 51.9
KILAUEA POINT 1133	MAX	82 71	85 70	84 72	84 74	83 72	B3	83 73	83 73	83	83	83	83	83	84	85 73	85	86 73	83 75	85 74	85 72	86 73	85 75	86 74	86 71	83	84 75	85 72	89	85 71	86		84.3
LIHUE WB AIRPORT	MAX M1N	85 67	81	82 65	82 66	82 68	83	82	82 73	83	82	81	82	82	83	82	83	84	83	84 75	8 4 7 5	83	83	84 76	85 76	83	84 74	82 75	84	83			72.6 82.9 71.2
MAKAHUENA POINT	MAX MIN	87 70	86 73	84 70	82	89 71	84 73	85 73	85 74	84 72	84 71	85 70	84	84	8 <b>7</b>	84 72	89	89 73	88	87 71	87 73	88 74	86 73	89 73	86 76	87	85 75	85 74	85 73	85 71	86		85.9 72.2
MANA 1026	MAX	88	86 67	85 69	88	86 71	86 69	87	87 68	85	89	88	89	85	85	87	87	86 70	88	87	86	87	87	87	90	85	87 65	86	88	89			87.0 67.8
NIU RIOGE 1035	MAX	80	80 63	80 65	81	81	80	80	81 65	81	81	81	80 65	80 65	80	80	79	80	81	82	81	82	84	83	82	82	82 65	81	81	83			81.1
WAIAHI LOWER 1054	MAX	80	80		82	82	80	82 61	82	80	81	82	82	83	83	84	85	84	84	94	83	83 65	85	84	83	83	80	79 67	82	82	83		82.2
* * *																																	
ISLANO OF OAHU																																	
EWA PLANTATION 741	MAX M1N	84	84 67	85 68	84	85 69	88	88	87 67	8 6 6 8	87 68	87 66	86 64	88	90 66	86 65		88 67	90	88	8 9 6 6	90 69	89	89 69	88 70	89	87 71	87 71	88	86 70	84 71		87.1 67.7
HONOLULJ WBAP 703	MAX M1N	84	84	84 71	86	85 73	88 73	88 75	88 74	86 73	86 73	87 70	87	86	88	86 70	86	91 72	90 73	88	89 73	89 73	91 72	89 74	88 75	88 73	88	88 74	89 74	85 73	82		87.1 72.2
HONOLULJ SUBSTA 704	MAX M1N	82	82	82 70	82	83 73	83 73	84 75	83	80 73	81	81 72	84	83 71	84 72	83 72	86	86 73	8 4 75	83	85 73	83 73	84 73	84 75	83 75	81	82 75	8 I 7 2	81	81 73	79		82.7 72.6
KAHUKU 912	MAX M1N	83	83			84	84	83 73	83 73	83			83	83	85 68	84 73	85			85 70	85 73	85 73	84	85 74			85 70	84	84	83			83.8
KANEOHE MAUKA 781	MAX M1N	84	80	82 69	84	85 71	85 72	84	83 73	83	81	82 71	82	84	85 69	83	85	84	81	85 71	83 71	85 72	84	85 73	84 73	85 72	81	83	80 72	83	78		83.1
MAKAPUU PO1NT 724	MAX MIN	81	83	8 2 7 5	82	87 73	85 75	80	80 72	80	78 71	80 74	82	83	88	84 74	85	84 76	85 76	82 73	80 72	83 75	83	83 75	81 75	81	78 75	80 72	78 75	81	80		82.0 73.3
OPAEULA 870	MAX M1N	81	81	82	82	83	84	82	82	82	78 63	80	82	85	84	84	86	86	84	85 63	83	84	86 65	85 64	83 67	80	80 68	81	77		77		82.3
PRI WAHIAWA 820.2	MAX	82		85 65	82	84	83	85	85 64	84	83	78 64	84	85	86	87	85	86			86	86	88	88	86	85 67	86 67	84	83	86			84.7
WAIALUA 847	MAX M1N	85	85	85	86	88	89	89	87	85 65	8 2 6 5	83	83	85 61	88	88	87	88	92	88	89	88	88	89 66	87 66	85 66	84 66	86 69	84	86 69	84 68		86.4
WA1K1K1 717.2	MAX	86	88 71	86 68	86	88 71	90 72	90 74	89 72	88 70	87 69	87 69	80	87 65	87 68		89 67	91 71			89 71	91 70	90	90 72	90 74		87 74	88 72	87 74	89 70	85 72		88.2 70.4
15LANO OF MOLOKAL																																	
MOLOKA1 AP 524	MAX M1N																																
* * *																																	
15LANO OF LANA1																																	
LANAI C1TY 672	MAX M1N		76 61			77 66	81	79 65	78 66	78 64	77	79 65	78 63	81 62	80 65	79 64	80 65	80 65	81 66	78 66	79 64	78 64	80 67	82 64	80 67	78 66			78 67	76 67			78.7 65.0
ISLAND OF MAUL																																	
HALEAKALA R5 338	MAX	61	63	62	65	66 51	63	66 52	65 46	62 47	63	67 42	64 43	61	65 42	65 45	64	67 47	67 49	74 53	73 52	72 53	70 54	68 42	66 44	61 40	69 47	67 48	64	64 48	61 49		65.5 46.5
HALEAKALA SUMMIT 338.4	MAX	57 42				58 45	59 45	58 44	58 46	59 45			59 50	60 49	59 50		60 54			61 54		59 42	58 50	59 44			59 51	58 42		59 42			58.9 47.0
HANA AIRPORT	MAX M1N	86 70	87	86 66	85 70		87 69	87 69	8 <b>7</b> 70	85 68	85 70		85 70	85 73	87 69	87 74	86 72	86 72	88 72	86 70	87 69	87 69	86 71		85 69	87 71	84 73	83 74		83 72			85.8 70.2
KAHULU1 WB AP	MAX M1N	84	87 66	86 66	88	86 68	86 65	87 70		85 72	85 71	84 62	88 63	89 65	88 65	89 65		89 68	89 71	87 65		87 70	90 67	88 65	86 72		85 71		87 72				86.7 67.7
KAILUA 446	MAX M1N	81 63	81 63	80 70	79 60	81 62	81 63	81 67	80 66	80 60	79 64	80 63	80 63	80 64	81 67	81 67	81 66	83 66	83 67	83 67		8 2 6 5	82 66	80 69	78 67	80 66	81 66	8 2 6 6	82 66	82 66			80.9 65.3
KULA 5ANATORIUM 267	MAX M1N	73 60	68				68 57	71 58	72 60		72 60		72 56		74 58		74 59	73 60		74 57		74 56	73 59	74 59	72 61		74 60	73 58	78 59	72 60	69 63		72.4 58.8
LAHAINA 361	MAX MIN	87 66	86 65		85 65		88 67			89 64	88 64		89 62		88 65		89 66	89 67	90 66	91 67	89 65	90 67	90 67	90 66	90 66	89 65	91 64	91 67	92 65	88 70			88.8 65.8
WAILUKU 392	MAX	87		86	86	86	85 70	85 70																									
	1	i			1																		1										

#### DAILY TEMPERATURES

1 1 AWAH BAUL Continued Day Of Month Station 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 ISLAND OF HAWALI 84.8 HAINA 214 70.7 56 55 54 57 55 HAWATT VOLCNS NP HQ 54 MAX 85.2 MAX HILO WB AIRPORT 64 KAINALIJ 738 MAX 61 64 63 62 76.2 61 KAMUELA 192.2 MAX 54 60 58 56 MAX 57 KAMUELA AIRPORT 84.0 66.1 63 KEAAU 92 MAX 67 79.5 64 64 65 66 KEALAXEKUA 26.2 63 65 82.5 65 67 XOHALA MI55ION 175.1 83.7 XONA AIRPORT 68.3 70 71 71 71 72 46 64.5 48.6 52 KULANI CAMP 79 88.2 MAUNA XEA BEACH 71 71 73 73 72 71 38 42 36 37 37 55.9 37.6 MAX MAUNA LOA SLOPE OBS 35 34 36 37 40 40 33 64 78.9 61.5 62 MOUNTAIN VIEW 91 64 61 63 81.7 68 68 MAX NAALEHU 14 67 67 64 82.8 67 67 69 69 OOXALA 223 MAX MIN 68 78.6 61 63 64 60 59 59 63 OPIHIHALE 2 24.1 MAX MIN 63 80.8 MAX M1N 66 64 64 65 64 66

#### EVAPORATION AND WIND

UPOLU POINT USCG 159.2

MIN

84.9

Station																Day	Of M	onth															Total
Station		1	2	3	4	5	8	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	To A
* * * 5LANO OF KAUAI																																	
IHUE W8 AIRPORT	EVAP W1NO MAX MIN		.20 61 90 68	52 95	50	94	54 87	83 94	112 93	135 93	146 92	139		78 93	73 95	• 32 62 95 68	.40 61 96 67	60 96	89 95	102	94	•39 92 93 69	94 95	.44 87 96 70	94	138		175	140	103			9.95 2846 92.8 68.3
SLANO OF OAHU																																	
ONOLULU 085ERV 702.2	EVAP WINO MAX MIN	.30 20 100 73	20	97	97	97	13 97	27 97	36 95	38 97	43 89	90	17	99	100	28	100	.27 22 101 74	28 99	98	30 98	31 86	32 99	38 96	48 98	57 95	.37 67 94 70	58 94	56 96	39 96	95		8.35 945 96.2 71.6
e e e 5LANO OF HAWAII																																	
ILO w8 AIRPORT	EVAP WINO MAX WIN	86	73 90	90 85	79 92	90	92	77 91	76 93	61 92	72 92	.23 66 91 64	.20 65 91 68	•16 73 89 69	.29 75 92 65	87	•14 64 87 71	87 92	•19 79 90 69	•28 71 88 68	75 90	.21 69 91	74 90	•23 73 91 68	•12 48 78	• 20 70 86 67	72 90	85	66 82	82	87		6.66 2204 89.1 68.0

## CLIMATOLOGICAL DATA

HAWAII DELAYED DATA JUNE 1967

																				JUNE	196	7	
				Tem	perot	ure											Precip	oitation					
										١	lo. of	Doys	5					\$no	w, Sleet		N	o. of D	oys
Station	Averoge Moximum	Averoge Minimum	Average	Deporture From Normal	Highest	Dote	Lowest	Dote	Degree Doys	Abova W		32° or Balow	_	Totol	Deporture From Normol	Greatest Doy	Dote	Totol	Mox. Depth on Ground	Dote	.10 or More	.50 or More	1.00 or More
AUGUST 1966 WAlluku 392	84.4M	70.6M	77.5M	5	89	28	66	1		0	0	0	0	1.38	.52	•37	11	•0	0			0	0
* * *  JANUARY 1967  MAUNA KEA BEACH	83.4	64.7	74.1		90	2	52	19		1	0	0	0	1.45		1.25	12	•0	0		2	1	1
* * * FEBRUARY 1967 MAUNA KEA BEACH	83.4	65.6	74.5		89	9	60	21		0	0	0	0	1.36		1.36	10	•0	0		1	1	1
* * * MARCH 1967 MAUNA KEA BEACH	83.6	67.4	75.5		91	1	55	1		1	0	0	0	1.58		•52	25	•0	0		4	1	0
APRIL 1967 MAUNA KEA BEACH	85.4	68.3	76.9		89	30+	64	9	:	0	0	0	0	5.40		2.04	17	•0	0		5	3	2
MAY 1967  MAUNA KEA BEACH	86.6	71.3	79.0		91	23+	65	5		3	0	0	0	3.26		2.25	13	.0	0		2	2	1

## DAILY PRECIPITATION

	la l														Day	of M	onth																
Station	Total	1	2	3	T	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
* * *																																	
AUGUST 1966																																	
MAILUKU 392	1.38					.20	.20		T				. 37	.10				•06	*	.26	T					.09	.10						
JANUARY 1967																																	
MAUNA KEA BEACH	1.45	.07												1 . 25		•11	.02																
* * *												ĺ						ŀ			}												
FEBRUARY 1967	. 1																																
KULANI SCHOOL SITE 78 A	•19			• (	14							.15																					
	ĺ				1																												
																											1						
MAUNA KEA BEACH	1.36											1.36			T		T																
MARCH 1967																											Ĭ						
KULANI SCHOOL SITE 78 A	3.12																		2.02						1.10	2	1						
					1									_		-		-	2 . 0 2								ł						
MAUNA KEA BEACH	1.58											Т	•19	Ţ						.48			.03	.08	.01	7	.52					.21	
APR1L 1967																																	
MAUNA KEA BEACH	5.40	.04						.13					.03	.01			.37	.01	2.04								.91		1.80				
MAY 1967																																	
MAUNA KEA BEACH	3.26														2.25			+04	97	T	T												

## DAILY TEMPERATURES

									D.	ΑI	LY	TI	ΞM	PE	RA	T	UR	ES	,											нам	DEL	AYED	DATA 1967
															1	Day (	Of Mo	onth															Average
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
AUGUST 1966																																	
WAILUKU 392	MAX		85 72		81 70	84 70	85 71	84 72	85 70	82 70	83 69	84 72	83 70	85 70	84 70	85 70	79 71		85 70	85 72	84 70	85 71	83 71	85 72	84 71	8 4 71	84 71	85 70	89 73	86 70	86 69		84.4 70.6
JANUARY 1967																																	
MAUNA KEA BEACH	MAX	83 69	90 69	87 69	89 72	86 64	85 63	84 62	80 62	84 65	86 64	83 68	79 59	79 60	79 61	8D 65	18	81 68	84 66	87 52	88 66	81 65	82 64	81 67	85 67	82 63	83 65	83 66	82 65	83 64	85 67	84 67	
FE8RUARY 1967																																	
MAUNA KEA 8EACH	MAX	8 I 70	8 Z 6 R	82 65	82 65	87 65	88 65	83 67	84 66	89 63	85 69	81 68	85 67	83 68	82 68	79 65	82 67	82 67	84 64	83 63	82 65	8 8 60	84 63	82 63	83 68	8 I 65	82 65	82 64					83.4 65.6
MARCH 1967																																	
MAUNA KEA BEACH	MAX		87 68		82 63							78 68												76 68									83.6 67.4
APRIL 1967																																	
MAUNA KEA 8EACH	MAX MIN		8 <b>7</b> 69																					87 67			85 <b>7</b> 0		84 71				85.4 68.3
* * * * * * * * * * * * * * * * * * *																																	
MAUNA KEA BEACH	MAX	86 72	85 71	86 69	89 70	85 65	87 69	85 69	86 69	84 71	86 73	8 <b>7</b> 72	8 8 7 2	85 69	86 73	86 71	86 74	86 71	85 75	85 73	85 71	87 73	91 73	9 I 7 3	90 70	87 70	85 73	87 74	87 74	88 71			86.6 71.3

#### CORRECTIONS

JUNE 1966	DAILY PRECIPITATION TABLE	ISLAND OF KAUAI	MOHIHI UPR CROSS 1083	TOTAL PRECIPITATION V5.94
JUNE 1966	EVAPORATION AND WIND TABLE	ISLAND OF HAWAII	HILO W8 AIRPORT	WIND MOVEMENT ON 1ST 81, TOTAL WIND MOVEMENT 2234; EVAPORATION ON 1ST .18, 20TH .25, TOTAL EVAPORATION 6.21; MAXIMUM WATER TEMPERATURE ON 1ST 82, AVERAGE MAXIMUM WATER TEMPERATURE 87.1, MINIMUM WATER TEMPERATURE 0N 1ST 67
JUNE 1966	EVAPORATION AND WIND TABLE	ISLAND OF KAUAI	LIHUE W8 AIRPORT	MAXIMUM WATER TEMPERATURE ON 3D 91, AVERAGE MAXIMUM WATER TEMPERA- TURE 89.3; EVAPORATION ON 13TH .38, TOTAL EVAPORATION 10.78
DECEMBER 1966	DAILY PRECIPITATION TABLE	ISLAND OF MAUI	PAAKEA 35D	TOTAL PRECIPITATION *, 31ST *

STATION	EX NO.	NOIS DISTRICT	AGE 1	LATITUDE	LONGITUDE	ELEVATION	T	SERVA IME A TABL	ES	OBSERVER	STATION	K NO.	NOISTRICT	AGE ;	TUDE	NOIL	T	SERVA IME A TABLE	.ND	
Simion	INDE	DISTRICT	DRAINAGE	LATI	TONG	ELEV	TEMP.	PRECIP	SPECIAL	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TEMP	PRECIP.	SPECIAL	OBSERVER
BRYDESWOOD STA 985 EAST LAWAL 934 EKW 3 RESERVOIR 1094.1 ELEELE 927 HALAULA 1110	A 0145 A 0240 A 0456 0465 A 0470 A 0935 A 1038 1170	O2 KOLOA O1 KAWAIHAU O2 KOLOA O2 KOLOA O2 KOLOA O2 KOLOA O1 KAWAIHAU O2 LIHUE O1 KAWAIHAU O3 WAIMEA	2 2 2 1 2 1	21 57 22 09 21 56 21 55 22 06 21 54 22 07 21 58 22 05 21 59	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 28 159 28	1610 116 720 440 350 163 253 490 1218		7A 7A 7A 6A 7A 6A		MC BRYDE SUGAR CO. LIMUE PLANTATION CO MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIMUE PLANTATION MC BRYDE SUG CO LTO CROVE FAPH CO LTO S LIMUE PLTN CO LTO KERAHA SUGAR CO, LTO	KAUMALAPAU MARBOR 658 A LANAI CITY 672 LANAIHALE 684 A MAHANA 694 A MALAUEA 676 A WAIAKEAKUA 685	3461 5286 5301 5704 6012	Ol LAHAINA Ol LAHAINA Ol LAHAINA Ol LAHAINA Ol LAHAINA Ol LAHAINA Ol LAHAINA	1 20 53 1 20 47 1 20 50 1 20 49 1 20 53 1 20 46 1 20 47	157 00 156 55 156 53 156 55 156 55	1640 30 1620 3370 1430 1135 2040		W1 8A 7A W1 MO W1 WM	0000	OOLE COMPANY OOLE COMPANY OOLE COMPANY DOLE COMPANY OOLE COMPANY DOLE COMPANY DOLE COMPANY
KANALOHULUHULU 1075 KANEHA RESERVOIR 1092 KAPAA STABLES 1104	2222 A 2227 A 2974 3099 A 3104 A 3159 A 3982	O2 LIHUE 01 HANALE1 01 HANALE1 03 WAIMEA 01 KAWAIHDU 01 KAWAIHAU 01 KAWAIHAU	3 1 1 3 1	22 02 22 09 22 11 22 08 22 08 22 05 22 06 21 58 22 13 22 11	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25 159 24	1070 690 400 3600 800 175 9 9 317 415		7A W1 7A 8A 7A 8A 6A 7A	× × ×	LIMUE PLTN CO LTO 5 MC BRYDE SUG CO LTO KILAUEA SUG PLTN CO KANALOHOLUPULU R. S. LIMUE PLANTATION LIMUE PLTN CO LTO LIMUE PLTN CO LTO KEXAMA SUGAR CO LTD KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO	FIELD 46 474 HAELAAU 477 HALEAKALA B E S 634 HALEAKALA RANCH 4-92 HALEAKALA RANCH 4-92 HALEAKALA SUMMIT 338-4 HALEAKALA SUMMIT 338-4 HALEAKALA SUMMIT 338-4 HALEHAKU 497-2 HALIHAHLE 4-23 HAMAKUAPOKO 485	0541 0790 0995 0999 1004 1008 1016 1075 1086	02 MAKAWAO 01 MAKAWAO 01 MAKAWAO	2 20 37 4 20 59 4 20 57 1 20 51 1 20 50 2 20 43 1 20 55 1 20 55 1 20 55	156 36 156 18 156 19 156 15 156 16 156 17 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8A 8A	7A 6-8 8A 6A 5A 5-1	0 00	ULUPALAKUA RANCH  HAUI PIREAPPLE COM- HAUI PIREAPPLE COMPANY U OF HAWAII EXP STA HALEARALA RANCH CO HALEARALA NAT PARK U OF MICH MT HRALA 08SY PHIL SCOTI MAUI PINEAPPLE CO- HAWAIIAN COM + SUG CO
KOLOA MAUKA 994 KOLOKO RES 1137 KUKU1ULA 935 LIHUE VARIETY STA	4650 4735 4742 4750 4758 4950 5560	O1 MANALE1 O3 WAIMEA O3 WAIMEA O2 KOLOA O2 KOLOA O1 KAWAIHAU O2 KOLOA O2 LIHUE O2 LIHUE O2 LIHUE	3 2 2 1 2 2 2 2	22 14 22 02 22 04 21 55 21 58 22 11 21 54 22 01 21 59 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23 159 22 159 21	180 2150 36 240 640 737 100 375 207 103		7A 8A 7A 7A 6A 7A 7A M1D	C C BAC J	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD KILAUEA SUG PLIN CO MC BRYDE SUG CO LTD HAWALIAN SUGAR PL ASSN LIHUE PLIN CO LTD U S WEATMER BUREAU	HONOKOHAU 480 HONOKOHAU 493 HONOLUA FLD 49 494 HONOMANU GULCH 341 IAO NEEDLE 387.2 KAHOMA INTAKE 374	1125 1148 1552 1882 1887 1914 1935 2208 2552	01 HANA 01 HANA 01 HANA 02 MAKAWAO 04 LAHAINA 04 LAHAINA 01 MAKAWAO 03 WAILUKU 04 LAHAINA	1 20 45 1 20 48 1 20 45 4 20 58 4 21 00 4 21 01 1 20 47 3 20 53 4 20 54	156 13 156 36 156 39 156 38 156 14 156 33 156 38	120 61 325 6930 870 135 125 6280 1100 2000	11A	8 11 7A M 6A M 6A M 1		HARRY MASEGAWA HAWAILAN AIRLINES KOOLI RANCH HALEANALA NATL PARK RGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO HAUI PINEAPPLE CO HALEAKALA RANCH CO STATE DIVISION OF PARES PLONEER MILL CO LTD U S WEATHER BUREAU
MANA 1026 M + M 1001 MOH1H1 UPR CROSS 1083	A 5864 6082 6097 6433 A 6529 6565 6850 6888	D2 KOLOA O3 WAIMEA O3 WAIMEA O2 WAIMEA O1 KAWAIHAU O2 WAIMEA O3 WAIMEA O2 LIHUE O1 LIHUE	3 3 2 3 1 2 3 2	21 52 21 55 22 02 21 55 22 07 22 11 22 04 22 02 22 04 22 04	159 27 159 38 159 46 159 28 159 36 159 20 159 30 159 44 159 28 159 26	52 140 11 300 3500 330 5075 1250 1110 650	9A	8A 7A 9A M1D 7A 6A 7A	ic s	U S COAST GUARD OLONELE SUGAR CO LTD GROVE FARM COMPANY SU S GED SURVEY LIHUE PLANTATION CO. SU, S. GEO. SURVEY KEKAHA SUGAR CO LTD LIHUE PLTN CO LTD LIHUE PLTN CO LTD	KALLIILI 436 KALUA 466 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEAHUA 410 KEANAE 366 KEANAKAPU BEACH 260.2 KIHEI 31 KIPAHULU 258	2630 2679 3433 3576 3910 4091 4193 4489 4634	OS WALLONG OI MARAWAO OI HARAWAO O4 LAHAINA O2 HANA O3 MARAWAO O1 HANA O2 MARAWAO O3 WAILUU O1 HANA	1 20 51 1 20 54 4 20 53 2 20 39 3 20 52 1 20 50 2 20 42 3 20 47 1 20 39	156 16 156 13 156 38 156 08 156 23 156 10 156 27	2520 700 1585 1020 480 980 20 90 260	7.1	MO 7A WI 5A MO 6P 7A 7A		O S MEATHER GUNEAU E MAUI IRR CO LTO E MAUI IRR CO LTO PIONEER MILL CO LTD KAUPO RANCH HAWAILIN COM + SUG CO E MAUI IRR CO LTO A L L CORELL HAWAILIN COM + SUG CO A L S CORELL HAWAILIN COM + SUG CO A LPAHULU CATTLE COMPANY
RESERVOIR 6 1004 STABLE CAMP 1055.1 WAHIAWA 930	8165 8205 4 8217 4 8573 8694 4 8941 4 8949 8958	O1 MANALE1 O1 MAMALE1 O3 WAIMEA O2 LIMUE O2 LIMUE O2 LIMUE O2 KOLOA O2 KOLOA O2 LIMUE O2 LIMUE	2 2 2 2 2	22 12 22 13 22 01 21 58 21 57 22 04 21 54 21 58 22 01 22 01 22 01	159 34 159 29 159 42 159 24 159 27 159 27 159 34 159 31 159 27 159 28	101 295 1660 329 420 740 215 2100 565 780	6A	6A 7A 7A 8A 8A 7A MO 6A 8A	200	MC BRYDE SUG CO LTO PRIMEEVILLE RANCH KEKAMA SUGGAR CO LTO GROVE FARM CO LTO GROVE FARM CO LTO LIMUE PLANTATION CO. MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIMUE PLIN CO LTO LIMUE PLTN CO LTO LIMUE PLTN CO LTO LIMUE PLTN CO LTO	KULA MEIGHTS 323-2 KULA SANATORIUM 267 LANAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO INTAKE 372 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442 MAHINAHINA 466 MALUHIJA 462-2 MOKUPEA 475	5003 5006 5177 5404 5408 5665 5715 6042 6521	02 MAKAWAO 02 MAKAWAO 04 LAHAINA	2 20 47 2 20 42 4 20 53 4 20 51 1 20 53 4 20 57 4 20 57 4 20 57 4 20 59	156 19 156 22 156 41 156 37 156 39 156 15 156 40 156 32 156 37	5788 2520 3004 45 1280 220 715 1040 129	74. 7#	6A 7A 7A VAR 7A MO 7A		S MAUI PINEAPPLE CO KENNETH WILLEY KULA SANATORIUM PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD E MAUI 18R CO LTD PIONEER MILL CO LTD B S OF A COUNCIL SMAUI PINEAPPLE CO MAUI PINEAPPLE CO
WAIMEA 947 WEST LAWAI 931  1SLAND OF OAHU  ALEA FIELD 625 761 BERETANIA PUMPING STA CAMP 84 C P C 807	4 9467 9629 4 9955 4 0111 0211 1 0300	O3 WAIMEA O2 LIHUE O3 WAIMEA O2 KOLOA  O3 EWA O3 EWA O3 EWA	3 2	21 59 22 02 21 57 21 54 21 25 21 19 21 25 21 39	159 43 159 21 159 41 159 31 157 57 157 51 158 04	10 50 20 210 455 20 680		8A 7A 8A 6A 7A 9A 6A	c	KEKAHA SUGAR CO LTO LIHUE PLANTATION WAIMEA SUG MILL CD MC BRYDE SUG CO LTO WAIAHOLE WIP CO LTD BOARD OF WIR SUPPLY CALIFORNIA PAG CORP	DLINDA 332 OLOMALU 296 OLOMALU 296 OLOMALU GULCH 377 PAAKEA 350 PAIN 406 PAINLEIMULU 259*2 PAUWELA 490 POHAKEA BRIDGE 307*2 POLIPOLI SPRINGS 267*2A	7040 7059 7066 7194 7566 7674 7857 8060 8070	01 MAKAWAO 04 LAHAINA 04 LAHAINA 01 HANA 01 WAILUKU 02 HANA 01 MAKAWAO 03 WAILUKU 02 MAKAWAO		156 17 156 38 156 36 156 07 156 23 156 08 156 19 156 31 156 20	4127 7 800 1260 170 3570 485 167 6150		VAR 7P MO 6A 6A W1 7A 6A VAR	C	MAUL CO WATER DEPT PIONEER MILL CO. PIONEER MILL CO. PIONEER MILL CO LTD E MAUL IRR CO. LTD HAVAITAN COM + SUG CO. HASEROT PIMEAPPLE CO. WALUNG SUGAR CO. STATE DIV OF FORESTRY
HONOLULU DBSERV 702.2	0350 0438 0507 0964 1384 1540	02 HONOLULU 03 EWA 02 HDNOLULU 03 EWA 03 EWA 03 EWA 02 HONOLULU	2 3 2 5 3 2 2	21 26 21 21 21 21 21 23 21 33 21 24 21 19 21 20 21 19	157 56 157 47 157 50 158 02 157 54 158 00 158 06			M10	C C C C S S	RICHARD COBURM  U OF H MARINE LAB  J. L. BANNING  EWA PLANTATION CO  BOARD OF WATER SUPPLY  WAIALUA AGR CO LTD  W. V. VOM HOLT  U S COAST + GEOCETIC  U S WEATHER BUPEAU  ESSA-WEATHER BUPEAU	PUU KUKUI HAKAI 472 APUUHEKE 396 PUU PAKI 352 SPECKEELSVILLE 400.2 TWIN GATES 261-3 AVULUELE 333 AVULUELE 333 AVULUELAKUA PANCH 250 WAHIKULI 364	8553 8688 8742 8744 8750 8760 8955	04 LAHAINA D3 WAILUKU D1 HANA D3 WAILUKU O3 MAKAWAO D1 MAKAWAO O4 LAHAINA O2 MAKAWAO O4 LAHAINA		156 38 156 27 156 03 156 25 156 23 156 15 156 35 156 24 156 40	2980 2500 60 2160 85 1310 5230 75 1900 580		MO 7A 8A VAR MO 7A 8A		E MAUI IRR CO LTD PIONEER MILL CO UTD HAWAIIAN COM + SUG CO HAWAIIAN IRRIGATION CO HAWAIIAN COM + SUG CO KAONOULU PANCH HALEARALA FANCH CO PIONEER MILL CO LTD ULUPALAXUA RCH CO LTD PIOMEER MILL CO LTD PIOMEER MILL CO LTD
H S P A EXP STA 707 KAALAKE 1724-6 KAHAHA 883 KAHUKU 912 KALLUA FIRE STA 791-3 KALIHI RES SITE 777 KAMEHAME 724-7 KANEOHE MAUKA 781 KANEOHE MAUKA 781 KANEOHE RANCH 838	2146 2269 2462 2570 2683 2960 3056 3113 3123	02 HONOLULU 02 HONOLULU 01 KOOLAULOA 01 KOOLAULOA 01 KOOLAULOA 01 KOOLAUPOKO 02 HONOLULU 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAUPOKO	1 1 2 1 1 1 1	21 18 21 18 21 31 21 41 21 24 21 23 21 19 21 25 21 23	157 50 157 43 157 54 157 57 157 45 157 50 157 41 157 49 157 47	50 10 800 25 10 910 1380 225 365	ва	8A 8A 8 M1	c	H S P A EXP STATION MRS, MILLIE ZAPATA WAIAHOLE WIR CO LTD KAHUKU PLIM CO KAILUA FIRE STATION BOARD OF WIR SUPPLY HAWALI NATIONAL GUARD STATE HOSPITAL KANEONE RANCH CO	WAIKAMOI DAM 336 A WAIKAPU 390 WAILUA 1K1 348	9315 9332 9335 9376 9460	03 WA]LUKU 04 WA]LUKU 01 MANA 01 MAKAWAO 03 WA]LUKU 01 MANA 03 WA]LUKU 02 MANA	3 20 55 4 20 57 1 20 52 1 20 49 3 20 52 1 20 48 3 20 54 2 20 38	156 32 156 12 156 14 156 31	320 300 1200 4320 470 2630 200 220		6A 6A WM VAR 6A 6A	٤.	WAILUKU SUGAR CO WAILUKU SUGAP CO E MAUI 1RR CO LTD MAUI COUNTY WIR OEPT WAILUKU SUGAR CO S EAST HAUI IRRIGATION C ST. ANTHONYS BOYS SCH MALEAKALA RANCH CO
KAWAI IKI INTÄKE 680-2/ KAWELA MAUKA 906-3 KEMOO CAMP 6 855 KOOLAU DAM 633	3741 3825 4316 4766 5647 5650	02 HONOLULU 05 WAIALUA 05 WAIALUA 02 KOOLAUPOKO 05 WAIALUA 05 WAIALUA 04 WAIANAE 04 WAIANAE	2 5 5 5 5 5	21 36 21 21 21 35 21 34 21 40 21 33 21 30 21 26 21 29	157 54 157 52 158 11 157 59 158 00 156 05 157 58	10 614 20 1180 1050 725 1160		6A 7A WI 7A 8A	c c	GEORGE H. SWIFT KAMEMANEMA SCHOOLS WAJALUA AGR CO LTO WAJALUA AGR CO LTO HAWAII NATIONAL GUARD WAJALUA AGR CO LTO C + F OFFICEP MEOG  USN AMMUNITION OEP USN AMY	AWINI 182.1 EAST HONOKANE 183B AHAINA 214 HAKALAU 142 HALEHAUNAU 52 HALEPOULA 117 HALEPOMAKU 111 HAWAII VOLCNS NP HQ 54	0190 0450 0840 0905 1033 1060 1065 1303	05 N KOMA 01 N KOHALA 01 S KOHALA 01 HAMAKUA 02 S HILO 03 KAU 01 HAMAKUA 02 HAMAKUA 02 KAU 01 N KOHALA	5 19 38 1 20 10 1 20 07 1 20 06 2 19 54 3 19 24 1 19 56 2 19 46 2 19 20 1 20 14	155 43 155 28 155 08 155 17 155 24 155 28 155 16	5220 1870 4240 461 105 3648 5770 9220 3971 600	7A	MO W1 MO 7A MO MO MO 8A 7A	7 22	GREENWELL RANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTO HONOKRA SUGAR CO HEPEEKEG SUGAR CO. HAWAII NAT PARK KUKAIAU RANCH CO STATE DIV. OF PAPKS HAWAII NAT PARK KOHALA SUGAR CO.
LULUKU 781.7 LUNALILD MOME 724.2 HAKAHA KA1 796 MAKAHA VALLEY 800.1 HAKAPU POINT 724 MANOA TIZ MANOA TUNNEL 2 716 MAUNANILI 787.1 MOMALUA 770. MOUNT KAALA 846	5675 5766 5781 5800 6122 6130 6222	O1 KOOLAUPOKO O2 HONOLULU WA1ANAE O4 WA1ANAE O2 HONOLULU O2 HONOLULU O1 KOOLAUPOKO O2 HONOLULU O4 WA1ANAE	2 4 4 2 2 2 1	21 28 21 29 21 19 21 19 21 19 21 20 21 21	157 49 157 42 158 13 158 12 157 39 157 49 157 46 157 54 158 09	240 40 25 160 538 220 650 410	8 A	7A 7A 8A 8A 8A M1D	K	MILNOF LUM LUNALILD MOWE CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARD MRSAJONN H-BEAUMONT BOARD OF HIR SUPPLY EXP. STA. M-S-P-A- JOHN A ROXBURGH FEDERAL AVIATION ADM-	HOLUALOA 70 HOLUALOA 8EACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181.1 HONOMU HAUKA 138 HONUAULA 71 HIMAIALA 172	1557 1562 1665 1701 1864 1960 2047		2 19 43 4 19 38 4 19 37 4 19 27 2 19 56 1 20 09 2 19 51 4 19 40 4 19 45	155 55 155 59 155 53 155 09 155 44 155 09 155 53 155 52	27 3220 14 1089 300 800 1100 6250 8190 1960		MID HI MO 7A 7A 7A 7A 7A MO MO	IDK J	U S WEATHER BUREAU STATE OIV OF FOPESTRY VARIOUS RANCH HANDS MES MALAE W HUA PEPEEKEO SUGAR COMPANY KOHALA DITCH CO LTD PEPEEKEO SUGAR COMPANY STATE DIV OF FORESTRY STATE DIV OF FORESTRY HUEHUE RANCH
MULAMU RES 4 783 MULAMU RESERVOIR 5 775, DPAEULA 870 PALOLO VALLEY 718 PALOA FLATS 784 PEAR CITY TERCE 754,1 PORTLOCK ROAD 724,4 PRI WAHIAWA 820,2 PUNCHADULU 884 PUNCHADULU 884	6933 7150 7664 7810 7933 6126 8172	05 WAIALUA 02 HONOLULU 02 HOHOLULU 03 EWA 02 HONOLULU	2 2 3 2 5 1	21 21 21 21 21 34 21 20 21 21 21 25 21 17 21 26	157 49 157 50 158 02 157 46 157 48 157 58 157 43 158 01 157 54 157 51	1048 410 1060 995 1640 240 6 700 20 360	7.A	MID VAR 7A MID HID 50° 84	-	BOARD OF WTP SUPPLY BOARD OF WTR SUPPLY WAIALUA AGR CO LTD BOARD OF WTR SUPPLY JAMES MUMENO GEORGE L. BEENNER PIMEAPPLE RESEARCH INST KAHUKU PLIN CD NAT MEM CEMETERY	KAAWALOA 29 A KAHIAWAI 3.4 KAINALIU 738	2327 2512 2751 3048 3077 3078 3300	03 KAU 04 N KONA 03 KAU 04 N KONA 03 KAU 01 S KOHALA 05 S KOHALA 03 KAU 02 PUNA 02 S HILO	3 19 08 4 19 30 3 19 08 4 19 32 3 19 02 1 20 01 5 20 00 3 19 17 2 19 30 2 19 41	155 55 155 46 155 56 155 60 155 60 155 60 155 27 154 52	1340 1340 3700 1500 1375 2670 2665 2140 290 1123	6.A 8.A	7A 8A 7A WI 6A 8A 6A VAR	c	HUTCHINSOM SUGAR CO CAPIAIN COOK COFFEE CO. RUSSELL P. SMITH KONA EXPERIMENT STA HAWALIAN RANCH CO PARKER RANCH HAWALIAN AIRLINES HAWALIAN RANCH CO. INC. BOARD OF WATER SUPPLY SHIGEO MASUYA
WAHIAWA DAM 863 WAIAHOLE 837 WAIALAE KAHALA 715 WAIALUA 847 WAIANAE 798	8600 8730 8738 8815 8945 8964 9185 9195	01 KOOLAUPOKD 02 HONOLULU	2 2 5 1 2 5	21 22 21 20 21 20 21 18 21 30 21 28 21 17 21 35	157 47 157 49 157 50 157 49 158 03 157 53 157 47 158 07	488 2000 1325 79 854 745 40 32 20	7A	7A 8A 7A 8A 7A 7A	אאא ב	REV R CULLIMAN GOARD OF WATER SUPPLY R. E. WHITE DEPT. OF GEOSCIENCE WAJALUA AGR CO LTD HAROLD W BUTZINE WAJALUA AGR CO LTD CAPITAL INVEST CO CAPITAL INVEST CO	KAMAINUI LOWER 193 A KEAAU 92 KEAIWA CAMP 22-1 KEALAKEKUA 26-2 KEANAKOLU CAMP 124-2 KEHENA 181-2 KEHENA RESERVOIP 176-1A KIOLAKAA A + F 6 KIPA 89-2	3770 3872 3925 3977 4098 4245 4250 4625 4632	01 HAMAKUA 02 PUNA 03 KAU 04 S KONA 02 HAMAKUA 01 N KOHALA	1 20 05 2 19 38 3 19 14 4 19 30 2 19 55 1 20 07 1 20 10 3 19 04 2 19 44 1 20 14	155 02 155 29 155 55 155 21 155 45 155 48 155 38 155 09	1080 280 1700 1450 5280 3840 2520 1925 1490 309	8 -	W1 6A 8A W1 7A MO W1 6A		HONOKAA SUGAR CO PUNA SUGAR CO HAWAIIAM AGRI. COMPANY MISS ANY GREENWELL STATE DIV. OF FORESTPY HOHALA DITCH CO LTD KOHALA DITCH CO LTD STATE DIV OF FORESTPY MAUNA KEA SUGAR CO. KOHALA SUGAR CO.
WAIAWA 836 WAIKIKI 717-2 WAILUPE PESERVOIR 170 WAILUPE VLY SCH 723-6 WAIWANALO 794 WAIWANALO 795 WAIPAHU 750 WILHELMINA RISE 721	9261 9340 9397 9495 9500 9521 9521 9538	03 EWA 01 KOOLAUPOKO 02 HONOLULU	2 2 2 1 5 3	21 28 21 30 21 16 21 16 21 18 21 18 21 21 21 21 21 23	158 09 157 56 157 53 157 49 157 45 157 44 158 04 158 01	1575 800 760 10 170 180 60 420 59		WI WI 8A WI 7A 8A	c	WAJAMOLE WTR CO LTD WAIAHOLE WTR CO LTD WAIAHOLE WTR CO LTD WAON OF WTR SUPPLY WAILUPE SCHOOL ST DIV WTR + LAND DEV WAJALUP AGR CO LTD OAHU SUGAR CO BOARO DF WTR SUPPLY	KOHALA MAULILI 176 A KOHALA MISSION 175-1 KOIAWE LOWER 196 A KONA AIRPORT 68-3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE HIC 199	4675 4680 4685 4764 4815 4928 4938 5011	O1 N KOHALA O1 N KOHALA O1 HAMAKUA O4 N KONA O1 HAMAKUA O1 HAMAKUA O1 HAMAKUA O2 S H1LO	1 20 13 1 20 14 1 20 05 4 19 39 1 20 02 1 20 07 1 20 08 2 19 33 5 19 35	155 47 155 48 155 38 156 01 155 21	960 537 720 15 840 980 300 5170 8300 5735	84	7A	c	ROHALA SUGAR CO Y. LYMAN BOND HONDKAA SUGAR CO HAWAI IAN AIRLINES HAMAKUA MILL CO HONOKAA SUGAR CO HONOKAA SUGAR CO ST DEPT OF SOCIAL SER U S WEATHER BUREAU ST OEPT OF SOCIAL SER
KUALAPJU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524 PUUOHOKU RANCH 542+1	4394 4778 6138 6190 6534 8549	O1 MOLOKA1	1 1 1 1 1 1 1 1 1 1 1 1	21 04 21 06 21 06 21 12 21 12 21 09 21 04 21 08 21 09 21 09	156 59 156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06 156 44	30 60 12 70 560 878 20 1075 450 700	8.\	8= 6A WK 7A 8A 9A 8	מעעעע	KALAUPAPA SETTLEMENT  **. J*. CARSTEN  **.	LALAMILO FLO OFF 191-1 LANIMAU 68 C LAVA TREE PARK 66-1 MANUKA 2 AAUNA KEA BEACH MAUNA LOA SLOPE OBS MIDOLE HOLUALOA 68-1	5260 5330 5460 6134 6180 6198 6268 6270		1 20 01 1 9 40 2 19 29 3 19 07 1 20 01 5 19 37 4 19 37 1 20 06 3 19 11 2 19 33	155 58 154 54 155 50 155 50 155 35 155 58 155 50	2615 1530 650 1760 103 11146 475 1380 600 1530	84 H1	SAI BAI H10 BAI VAR H00 6A	c	STATE OFFT OF L * N REN KOME CAPEPHART STATE STATE OIL* OF PARKS STATE DIVISION OF PARKL U S WEATHER BUREAU U S WEATHER BUREAU U S WEATHER BUREAU KONN EXPERIMENT STA HAMAILAN RANCH CO PUNA SUGAR CO

CONTINUED		NOI		IGE 1	TITUDE	TUDE	NOLL	T	ERV IME I			STATION	0	NUEA NO.	DISTRICT	AGE 1	2-1	LONGITUDE	ATION		SER TIME TAI	AN	D	OBSERVER
STATION	INDEX	DIVISI	DISTRICT	DRAINA	LATIT	LONGITUDE	ELEVA	TEMP.	PRECIP.	SPECIAL	OBSERVER	SIATION	T.C.	PULLA	a di di	DRAINAGE	LATE	TONG	ELEV.	TEMP.	PRECIP.	EVAP.	SPECIAL ast worth	OBSERVER
OUALA 223 ORCHIO LAND EST 91-5 PAADHAU 217 PAADHAU 227 PAADHAU 217	7166 A 7185 7204 7312 7421 7457 A 7643 7711 7721	04 S 02 P 01 N 02 N 04 5 02 P 01 H 03 K 02 5 02 5 02 5 02 5 02 5 02 S 02 S 02 S 03 K 01 S	KONA UNA KOHALA HILO KONA UNA AMAKUA AMAKUA AU UNA AU HILO HILO HILO HILO HILO HILO HILO KOHALA	21242113 232222251	19 28 19 19 20 01 19 16 19 34 20 03 19 12 19 30 19 12 19 47 19 47 19 45 19 45 19 45 19 20 02	195 39 185 59 185 68 185 48 185 185 17 185 53 185 29 185 28 185 29 184 27 185 28 185 29 185 28 185 29 185 28 185 29 185 28 185 29 185 28 185 28 185 29 185 28 185 2	673 395 14000 75 4300 1270 445 415 800 870 670 5000 1270 100 1270 100 1730 6511 15 2870 7750	7A 7A	8 A A A A A A A A A A A A A A A A A A A	X.	HUTCHINSON SUGAR CO KONA ERPERIMENT STA KONALA SUGAR CO KONALA SUGAR CO KISS C LEONAND KONALA KONA	PUU LEMJA 73 PUU MALI 113 PUUNCUMAU 167 PUU MARAAA 94,1 91 PUU MARAAA 01 84 90 JAN PUH CORRAL 3 S POINT TRACKING 5TA UMIKOA 118 UPOLU POINT USCG 159-2 WAIRAKANOUULA 178-6	A 85 85 85 85 86 86 86 86 86 86 86 86 86 86 86 86 86	60 0 615 0 648 0 650 0 655 0 657 0 677 0 677 0 678 0 678 0	DS MAMAKUA DA N KOWA DA N KOWA DA N KOWA DI N KOWALA DI N KOWALA	1 1 2 5 2 3 3 1 1	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40	155 36 155 49 155 26 155 26 155 50 155 51 155 12 155 41 155 41 155 23 155 53 155 64 155 47	7440 4850 6960 1800 2520 2340 400 1050 3420 11050 3830	ва	MO MO MO TA SA WM WII TA BA TA		c	STREE CIV OF F19H-GAME OF EVENUE AND

TRAINAGE CODE: KAUAI: 1-MORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-SOUTH-CENTRAL 4-WESTERN 3-SOUTH-CENTRAL 4-WESTERN 1-NORTHEASTERN 3-SOUTH-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-SOUTHERN 4-WESTERN 5-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-SASTERN 3-CENTRAL 4-WESTERN 3-CENTRAL 4-WESTERN 3-CENTRAL 4-WESTERN 3-WESTERN 
#### REFERENCE NOTES

Additions: information regarding the climate of Bawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Bonolulu, Hawaii, or to any Weather Bureau Office mear you. Additional precipitation data are contained in "HOURLY PRECIPITATION DATA HAWAII".

DIMENSIONAL UNITS. Unless otherwise indicated, discussional units used in this bullatin are. Temperature in 'F., pracipitation and evaporation in inches, and wind movement in siles. In "Supplemental Data" table directions entered in figuren are tamms of degrees. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME: Data in the "Montbly Extrumne"; "Daily Precipitation" table, "Daily Tompmrature" table; and "Evaporation and Wind" table arm for the 24 Dours ending at line of observation unless indicated otherwise by reference intere in the Station Index of Daily The Station Index obove observation time in local standard time.

EVACUATION Is measured in the standard Wanther Burnau type pas of 4-foot disametr union otherwise shown by footnote following the "Evaporation and Wind" With refer to attreme of temperature of water in pas as recorded during 24-hours ending at time of observations.

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES: Hawali stath key numbers are included following station mames in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication.

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Pracipitation" table, "Evaporation and Wind" table, "Somefall and Snow on Ground" table, and the Station Index.
  - No record in thm "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- + And also on an earlier data or datas
- ++ Highnst observed one minute windspeed . This etation in not nquipped mith an instrument to measure fastest mile data
- \* Amount included in following mnaeurement, timm distribution unknown
- A The letter "A" shown following station mamm in "Climatological Data" table; "Daily Precipitation" table; and "Station Indam"; indicates amount carried in the "Total" column is for the puriod from last measurement of a praceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous building for date of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- B Adjusted to a full month.
- J "Supplemental Data" table
- M One or more days of record missing, if average valum is untered, luss than 10 days rucord is missing. See "Dally Temperature" table for detailed dally
- R Amounts from recording gags
- T Trace, an amount too small to mnanure
- V Includes total for previous

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING:

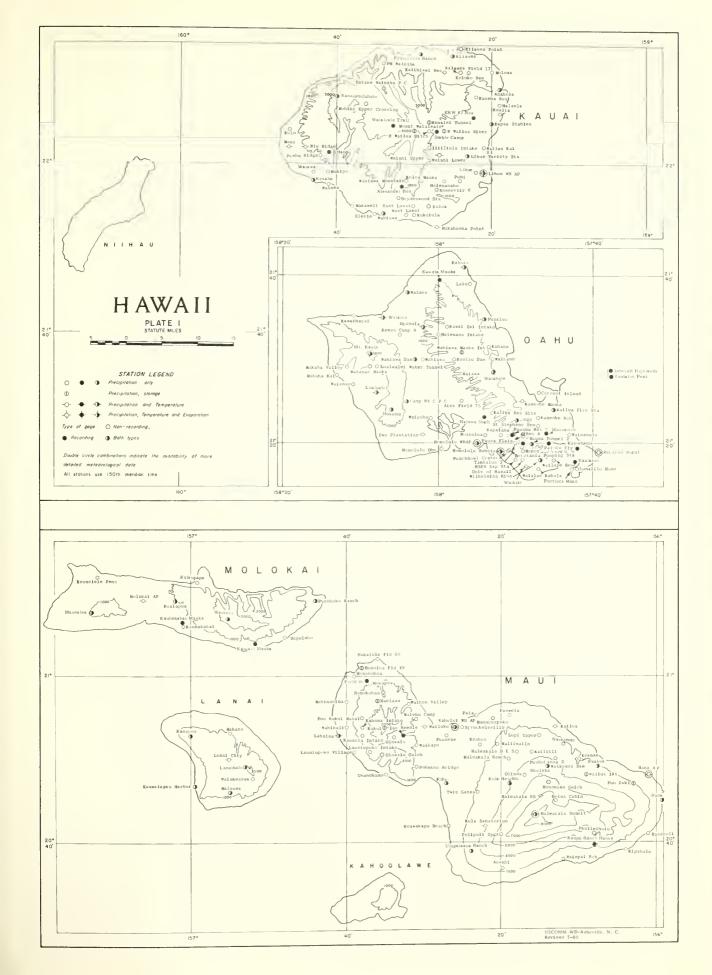
- AR Observation made after rain.
- C in Special Column of Station index indicates Becording Rain Gagn Station. Sourly pracipitation values are processed for special purposes, and are published in "Pourly Precipitation Data" builting the daily amounts are published in "Classicological Data" builting they are from a separate son-recording gage, accept where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in
- MO Gage read once monthly; usually on the last day
- OC Gage readings at periode varying from a few weeks to enveral months
- 5 Storage Precipitation Station. Precipitation measurements, made at Irregular intervals, are published in the December issue, or as delayed data in the June Issue of this publication.
- SS Obenryation timn is near sunset
- VAR Observation time is variable
- WI Gage read meekly or irregularly only
- NW Gage read senkiy and last day of month
- # Thermometere are generally exposed in a shelter located a few fact above sod-covered ground; hownvar, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

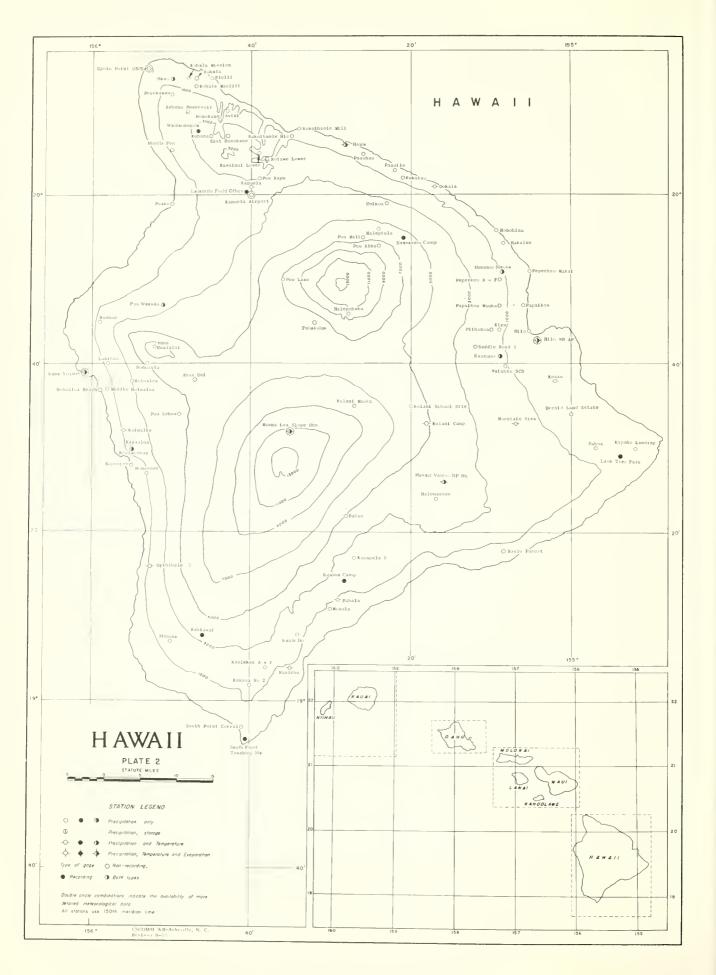
Stations appearing in the Index, but for which data arm not listed in the tables, wern either missing or recnived too late to be included in this insun General seather conditions in the U. S. for each month are described in the publications MONTHLY TRATEGR REVIEW, MONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Covernment Printing Office, Washington, D. C. 20462.

Information concerning the bietory of changes in locations, elevations, exposure, atc., of substations through 1957 may be found in the publication "Substation Bietory" for this State, price 40 cents. Similar information for regular Weather Sureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Documents at the address shown above.

Subscription Price: 20 cnate per copy, sontbly and annual; \$2.50 per year. (Ynarly subscription includes the Annual Summary.) Checkin and sonny orders should be sade payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions abound be sent to the Nuperintendent of Document, Overseast Printing Office, Sanbligton, D. C. 20402.

USCOMM-ESBA-ASHEVILLE-9/28/67-660











U. S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE 501:

HAWAII

JULY 1967

Volume 63 No. 7

## CLIMATOLOGICAL DATA

*** *** *** *** *** *** *** *** *** **						Tem	perat	ure								ECH.	& A	GR		/				
INSLAD CF KANA1  ***CARPAS PROBLES 100   A   72.3   56.2   65.6   76.0   10. 40   1   0   0   0   2.22   2.25   2.20   2.00   0   1   0   0   0   0   0   0   0	Station					-0							1			ā	λE	ALC DISCOURS	Sno				-	0
ISLAND OF EXMAIL  ACRES   100	33101		Average Maximum	Average	Average	Deporture From Norm	Highest	Date	Lowest	Dote		1	+	_	Total	Deporture From Norm	eofest	Date	Totol	Max Depth on Ground	Dote	6	6	1.00 or Mo
EXAMENDATION A PRODUCT TOTS A PROBLEM TOTS AND STATE OF THE PROBLE																								
LINGE MARIEDS  REATHER TORN  R	KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135	A													3.36 2.47 6.97				.0	0 0				0
A   A   A   A   A   A   A   A   A   A	LIHUE WB AIRPORT MANA 1D26 N WAILUA OITCH 1051					1.4	86 92	28+ 14+							1.84 .52 16.59	10	• 25	31	.D	0		2	0	0
SEANO OF DAMU   SEANO OF DAMU    SEANO	WAHIAWA 930 WAIAHI LCWER 1054	A	80.7	66.0	73.4		84	2+	59	1		0	0	0	.95 10.79		.23 1.56	13	.0	0		23	6	0
ISLAND OF DAMU   SERV 702   R	I SL AND				75.2									1	4.7D				•0					
## APPLICED VALLEY 718    A																								
MAKENDL   POINT 726	HDNDLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781	R	M	M	м		85	31+				0	0	0	1.21 5.15 8.33	3.26 4.02	.68 1.51 1.63	1 21 8	.0	0		17	1 5	0
FUNALQUI 686  WALLAPUU 534  MAULEN 544  MAULEN 645  MA	MAKĀPUŪ PDINT 724 NUUANU RES 4 783 UPAEULA 870					2.6									1.25 8.28 5.05	39 1.75	.56 1.52 1.52	1 7 22	.0	0		18	7	0 I 1
** * * * * * * * * * * * * * * * * * *	PUNALUU 884 WAHIAWA DAM 863 WAIAHGLE 837								65	7	1			J	6.81 3.30 13.15	2.21	1.67	21	.0	0		2		0 0
** * * * * * * * * * * * * * * * * * *		А	88.3	73.7M	81.0M		92	23	71	6		7	0	0				3	.0	0		2	0	0
SLAND CF MOLDKAI	ISLAND				78.1										5.17				• (					
MADLEHU 542 MAUNALOA 511 MOLDKAI AF 524  ISLAND  1SLAND  1SLAND OF LANAI  LANAI CITY 672  TSLAND  MALEAKALA B E 5 634  MALEAKALA B E 5 634  MALEAKALA RS 3389 MALANAI RS 3389 MANA AIRPORT MONKOHUA 493 MANA AIRPORT MANA AIRPORT MONKOHUA 493 MANA AIRPORT MONKOHUA 493 MANA AIRPORT												1												
ISLAND OF LANAI  LANAI CITY 672  15LANO  * * * *  ISLANO  * * * *  ISLANO CF MAUI  **  **  **  **  **  **  **  **  **	MAPULEHU 542 MAUNALOA 511	A	83.3	72.1	77.7		90	23	70	18+		1	0	0	2.73	- •21 1•50	1.53	8 22	.(	0 0			0	1
ISLAND CF LANAI  LANAI CITY 672  ISLAND  **  **  **  **  **  **  **  **  **	ISLAND				77.7					13			П	ш	1.87				. (					
ISLANO  * * * * ISLANO CF MAUI  ** ** ** ** ** ** ** ** ** ** ** ** *																								
ISLANO CF MAUI  MALEAKALA B E S 434			77.9	66.5		1.1	81	24+	64	19+		0	0	0			2.14	8		1		7	3	3
HALEAKALA RS 338																								
RAILUA 446 KEANAE 346 A KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361  PAIA 406 MAILUKU 392  ROO 67.1 73.6 .9 84 2 63 1 0 0 25.00 6.00 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	HALEAKALA RS 338 HANA AIRPDRT HONOKOHUA 493	A	84.7	73.7	79.2	. 5	8	7 8	68	19		0	0	0	2.28 6.88 3.73	1.35	2.32	2 1	.0	0 0		18	2	0
PAIA 406 *AILUKU 392	KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267	А	74.3	59.8	67.1		76	3 23	5	7, 15+		0	0	0	25.90 6.90 4.53	6.03 - 2.63 2.41	1.40	22	.(	0 0		18 7 2	5 0	1
	WAILUKU 392				72.7												.66	5 29				6	1	0
	1 SEWIND				. 2.07																			

## CLIMATOLOGICAL DATA

HAWAII JULY 1967

					Ten	pero	ture									Precip	oitation					
											No. of	Doys					Sno	w, Sleet		И	o. of	Doys
Station		Averoge Moximum	Average Minimum	Average	Departure From Normal	Highest	Dote	lowest	Dote	-	32° or Below	Below 0° or 0	Total	Departure From Normal	Greatest Day	Date	Totol	Max. Depth on Ground	Dote	.10 or More	.50 or More	1.00 or More
ISLANO OF HAWAII																						
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT HUEHUE 92A KAINALIU 738	R A	84.3 72.1 84.5 80.4	67.9 56.3 71.0	76.1 64.2 77.8 72.5	2.0 1.3 2.9	89 85 87	21 28 9+		9 4 13+ 19+	0 0 0	0	0 0 0	4.2I 8.25 14.03 5.44 I0.68	.75 3.13 4.21 2.94 2.13	1.44 1.51 2.12	7	.0 .0 .0	0		6 16 21 15	2 5 7	1 3 5
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1 KONA AIRPORT 68.3	A	74.9 84.4 80.8	60.3 67.6 66.4 71.2	67.6 76.0 73.6 78.1	1.6	80 87 84	31+ 5+ 17+	55 65 65	30 14 19+	0 0	0	0 0 0	1.10 19.15 7.41 6.32 3.39	9.01	.15 3.28 1.33	22+ 22 14	.0 .0 .0	00000		5 21 16	0 10 5	0 5 1 0
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107	A	66.5M 90.0 82.I	49.9M 72.5 65.6	58.2M 81.3 73.9	.7	73 95 87	23 4 5	46 62 62	5 13 6+	0 17 0	0	0 0	6.46 12.68 .15 2.07 1.45	•92 •55	1.40 4.35 .08 .71	7 17 3 8 23	•0	0000		10 12 0 8 3	6 6 0 1 1	1 3 0 0
PUAKO 95A PUU WAAWAA 94.I UMIKOA 118 WAIAKEA SCD 88.2													1.03 5.64 3.89 26.33	3.54	2.40	22 23 21 8	.0	0000		1 8 12 23	I 3 2 12	0 1 0 5
ISLANO				72.7									7.35				.0					

#### EXTREMES

HIGHEST TEMPERATURE MAUNA KEA BEACH, HAWAII	95	OATE	04	
LOWEST TEMPERATURE MAUNA LOA SLOPE OBS, HAWAII	35	OATE	22	
GREATEST TOTAL PRECIPITATION PITHONUA 89, HAWAII A	37.40			
LEAST TOTAL PRECIPITATION KAUNAKAKAI 536, MOLOKAI A	•00			
GREATEST I DAY PRECIPITATION PAPAIKOU MAUKA 140.1, HAWAII	10.19	DATE	08	

#### HAWAII - JULY 1967

#### SPECIAL WEATHER SUMMARY

A weak tropical disturbance moving slowly westward about 200 miles north of Oahu brought widespread heavy showers and thunderstorms to the State on the 20th and 21st of the month. Small hail occurred at the Ranger Station on the upper slopes of Haleakala, and "heavy hail" was reported from the summit of Mauna Kea, Hawaii. Some upper canefields between Napili and Honolua on Maui's west coast were flooded.

Only one other noteworthy weather event occurred in the month -- the flash flooding which closed down the Belt Highway at Hookena, in

the south Kona area of Hawaii Island, during the afternoon of the 1st.

Rainfall in the State was generally above average, with the exception of Molokai and Kauai where many gages, especially in Kauai's leeward coastal areas, recorded well below their monthly means. In contrast, as the table below shows, this was the wettest July of record for Lanai City and for several long-period gages on Maui. Lanai was especially wet for the season, with every reporting gage showing from 3 to 50 times its July mean.

## Stations Whose Greatest Previous July Rainfall Totals were Exceeded in July 1967

(35 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest July Total	July 1967
LANAI			
Lanai City	37	5.59	7.45
MAUI			
Keahua	42	1.44	1.72
Puunene	58	1.45	1.58
Waiopai Ranch	47	1.71	2.12

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

	т			_		_		-			-			Day	of M	onth	-	_		-										JULY		1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	of M	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLAND OF KAUAI																											-					
ANAHOLA 1111  BRYOE5mOOO 51A 985  EAST LAWAI 934  ALEELE 927  HALAULA 1110  A	2 • 72 3 • 43 4 • 46 • 60 2 • 29		•			•22 •28 •22 •08	.04 .06 .02 T	.10 .16 .11 .08	*	*	.98 .96 .66 .01	•02	.03 .02 .01	•40 •38 •12 •07	•16 •07 •08			•17 •46 •74 •08	• 23 • 48 • 03 • 04	T .01	•14	*13 T	* * * * * * * * * * * * * * * * * * * *	*	.05 .20 .74 .01	.05 .10	*15 *18 *30 *05 *12	.10 .22 .25 .12	•01 •02		* * * * * * * * * * * * * * * * * * * *	*45 * *11 * *32 * *02 * *29 *
HALENANAHO 1006 A HUKIPO 945 1LILLIULA INTAKE 1050 1NTAKE WAINIHA PC 1086 A KALIHIWAI RES 1131 A	5.92 .36 15.81 8.13 10.44	.12	:	.20	.24	.76 .03 .39 .23	.03	.28 .42 .06	1.64	1.10	1.40 .18 2.30 1.12 2.13	.18 1.05 .31	.20	.18	.04 .30 1.33 .19	.70		1.30 1.28 1.83	.27 .06 I.10	.04		.24 .07 .26 1.19 1.85	.90	.24	.17 2.00 .98	.09 .3I	.78	.56	.04 .03 .04	• 20 I	.00	.57 . .05 . .20 . .37 .
KANALOHULUHULU 1075 KANEHA PESERVOIN 1092 A KAPAA STABLES 1104 A KEALIA 1112 A EKAHA 944	3.36 4.40 2.47 1.64	:	*	:	.03 e	.03 .31 .15	.02 .05 .02	.22 .16	.91	.06	.31 1.20 1.13 .70	•17 •03	•13	.32 .04 .05	.34 .13 .10	.01	:	•10 •15 •04	.01 .03 .02	.01	•15 •04	•43 •15 •11 •06	*14	•12 •	.39 .15 .04	.04 .02 .02	.09 .23 .05 .08	.08 .36 .10 .07	e05	:	.03	*10 * 1.12 * *12 * *10 *
KILAUEA 1134 A KILAUEA FIELO 17 1135 A KILAUEA POINT 1133 KOLO 1033 KOLO 4 936 A	3.89 6.97 2.54 .39 4.72		*	.04	.06	.05 .19 .03	.07 .03 .06	.04 .08 .60	e e e02	* * •06	.90 1.35 .07	.20 .29	•10 •02 •07	.07 .22 .03	•11 •03 •09	.02	* * * *	.48 1.10	.02 .07 .15	.01 .05 .17	.27 .34 .14	.25 1.17 .01 .33	* 30	.01	.54 .43 .04 .06 .81	•04 •12	.18 .21 .10	.21 .39 .03	.03 .02	.04	.10	.32 . .86 . .08 .
KOLOA MAUKA 994 KOLOKO RES 1137 KUKU1ULA 935 LIHUE VARIETY STA LIHUE 1020 A	7.55 6.76 1.77 5.89 2.38		*	*	* * * * * * * * * * * * * * * * * * * *	•56 •17 •10	.10 .06 .08 .46	.07 .08 .03 .09	* * 1.80	.10	1.51 1.41 .18 .72	.04 .28	•18 •02	.59 .15 .20 .17	.18 .31 .05 .05	.05	:	.81 .81 .10 .28	.61 .07 .13 .16	•02 •02 •02	.34	.24 1.60		* * *10	.50 .30 .45 .01	.08 .03 .09	.29 .07 .11 .12	.21 .20 .15 .17	.02 .01	* * • 05	:	1.51 a .79 . .12 a .32 .
LINUE #8 AIRPORT R MAKAHUENA POINT MAKAHELI 965 A MANA 1026 MONIHI UPR CROSS 1083	1.84 1.19 .32 .52 1.64	.07	.12	.05	.02	•02 •05	.07	.26 .02 .06	.50 .10	.03	.03 T		.04	.26 .05	•01 •01	•01 •01	.08 .01	T •42	T •02	.03 .01	.14	.24		•10 •02	.10	.01	.10 .07 .01	.06	•01	.02 .01 .02	.03	.03 .
MOLOAA 1145 A NIU RIOGE 1035 N WALLUA OITCH 1051 PH WAINIHA 1115 PHINCEVILLE RANCH 1117	2.66 1.07 16.59 10.09 8.08			.01	e .04 .02	.28 .93 .02	.03 .03 .08	.10 .28 .06	* * 98	* • 20 • 09	.92 .07 4.63 .08	.06 .58 T	.18 .05	.06 .23 .28	.54	* • 31		.15 1.89 1.70	1.13	.01	.17 .22 1.08		* 1.74 .72	* •11 •47	.03 1.77 .36	.43 .05	.03 .73 .53	.05 .54 .31	•11 •05 •02	•	*	.29 . .14 . 1.98 .
PUEHU RIOGE 1040 PUH1 1013 A RESERVOIR 6 1004 A WAHIAWA 930 A WAHIAWA MOUNTAIN 990 A	2.09 3.09 5.68 .95					•23 •55 •07	.10 .09	.06			.25 1.21 1.13	.01 .02	.02	•30 •46 •23	.09			.24	.04 .24 .15		.05	.63 .05 .39		:	•17 •46 •12	.07 .12 T	•13 •13 •34 •08	.18 .28 .08	•02 •01	:		.20 . .23 . .94 . .02 .
WAIAMI LOWER 1054 WAIAMI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 AWAIMEA 947	10.79 14.47 .12 2.82	.23	.10	.10	.23 .28	.43 .30	.12	.23	1.56		1.54 2.40 .04 1.23	.22 .57	.11	•21 •15	.03	.63 .78	.06	.71 .71	.45 1.09	.05 .02	.03 .01	.47 .53 .08 .20	.27 .55	.36 .55	.04	•30 •32	.30 .40	.37 .43	.02 .08	.02 .06	.78 1.01	.39 .
WEST LAWAI 931 A	1.70					-11	.02	.06	*		•12	т		.31	.05			.13	•21	Ť		•09			.36	.01	•12	.13	Ť			.07 .
ISLANO OF OAHU																																
AILA FIELO 625 761 A BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT ISLANO 840,1	3.66 2.85 2.23 4.05 5.57	.61 .42 1.36	.03 T	1.43 .02 .24 T	.07 .01 .12	*24 1.10 T	.03 .01	•02	.11 .66	• • 12	.60 .91 .09 .13	T •02	.02 .05	.05 .03 .02 .13	.12 .10	* •17 •01	.08	.40 .03 .10 .37	.04 T	T •07	.05 .05 .23	.02 .26 .47 1.41	* •16 •25 T	* •01 •09	•58 •18 T	T •03 •04 •16	.03 .09 .11	T T •03		* T	.09 .24	*08 * T *
EWA PLANTATION 74I HELEMANO INTAKE 88I A HUXULOA 725.2 HONOLULU OBSERV 702.2 HONOLULU WBAP 703 R	.89 5.35 2.10 .45 1.21	.19	• • T	1 • 32 •	T **	.01	•45 •31	e e •27	• 35 • • •21	:	•92 •93	:	.01	.05 .46 #	:	: T	* * T	1.03 .25	* *	* * T	.14	•02 •02 •01	* * * * * * * * * * * * * * * * * * * *	: T	* * T	.51	* * T	•42	* * T	* T	.03	•22 • •10 •
HONOLULU SUBSTA 704 H 5 P A EXP 5TA 707 KAHANA 883 KAHUKU 912 KAILUA FIRE STA 791.3	.53 2.27 31.45 5.15 2.27	.01 .36	* * 04	T 3.02 1.12 T	.02 .07	.03	.03 .01 .07		.07 .14 *	•	.01 6.88 1.15	•	* T	.04 .08 .07	.04 .15 .04 .10	* * T	* T	.09 8.10 .37	.02 n		.08 .18 .20	.09 .67 1.51	.01 .35 # T		T 7.45 .11 T	.04 * .07	.02 .04 .19	* •04 T	* T	*	.10 .21	6.00 .
KALIHI RES SITE 777 KANEOHE MAUKA 761 KANEOHE RANCH 838 A KAPALAMA 773 A KAWAIHAPAI 841	11.80 8.33 5.50 5.80 2.45	.96 1.15 1.10	.14	.12 3.02	.16 .28	.78 .20 .01	.03 .02 .04	.05	.18 1.63 .90 .55	.10 .10	.28 .05 .03 .50	•03	.50 .03	.16 .14 .17	.62 .35 .26 .18	.24 .12 .12	.46 .01	.98 .68 .20 .35	.02 .01 .08	.98	.66 1.21 .77 .10	.98 .48 .60 .32 .25	•12 •14 •15	.06 .01	•16 •14 •12 •10 •75	.30 .16 .04 .17	.10 .20 T .06	*11 T	т	.48 T	.50 .14	.01 · .15 · .38 ·
KAWAI IKI INTAKE 880.2 A KEMOO CAMP 8 855 A KOULAU OAM 833 LUALUALEI 804 LUALUALEI WTR TUNNEL A	11.50 2.37 9.50 2.12 4.37	.22 .22 .14	.04 .14	.06 .43	.63 T	•03 •38	.19	.01	* •63 1.02 •55		* •20	* 04 T	.12	.02 .65	.53	.08	* 16	.07 1.52	• • • • • • • • • • • • • • • • • • • •	.04 R	.49 .24 .06	.38 1.02 .06	.03 .03 1.10	.20 .86	.08	* •55	.09 .04	• 15	4.37	:	.06 .02	1.50 .
LUNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUU POINT 724 MANOA 712	1.44 1.01 .98 1.25 5.40	.70 .14 .14 .56	.27	.05 .15 .21	.07	.10	.03	.06	.43 .49 .43 .23		.19	.10	· ·	.02	.03		•05	.04 .42	.04	٠	.06 .11 .14	.06 .02 .01 .26	•05 •55	•11	•02 •02	•35	.14	.04	•02		.08	.03 .
MANOA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 783 NUUANU PESERVOIK 5 775 A OPAEULA 870	17.38 1.85 8.28 6.58 5.05	.60	.10	.08 .04 .74	.20	.04 .06 .02 .18	.02 .02 .02 .04	3.98 1.52 .04	.30 .33 .12	.32 .10	.08 .98 .01	.01	.38	.64 •11 •12 •34 •14	.38 .08 .26 .35	.16	.76 .32	1.22 .I3 .54 .68	.30 .04 .05	.24 .54 .03	.82 .54 .48	.68 .21 .78 .60	.28 .22 	.20 .02 .16	.46 .08 .43	.80 .44 .31	.20 .01 .08 .19	.08		.74 I	.80	1.07
PALOLO VALLEY 718 PAUOA FLATS 784 PURTLOCK MCAO 724.4 PRI WAWIAWA 820.2 PUNALUU 884	15.56 16.48 1.15 3.41 6.81	.60	.08	.04 .12 1.04 .08		.02	.16	2.52 2.82 .29 .02	.08 .50	.62 .26 .07	.78 .80 .03 .52	.02	.36 .58	.32 1.00 .02 .07	.10	.04 .20	.64 .96	1.02 1.64 .03 .16	.36	•68 •26	.40 2.04	1.12	.14	.06 .28	.10	.52	.16 .18	.12 .04		.38 2 .76 1	.44	.06 .
PUNCHBUNL CRATER 709 A ST STEPMENS SEM 788 TANTALUS 2 780.65 UNIV OF HAMAII 713 A WAHIAMA DAM 863	7.00 7.00 V13.65	.83 1.00	.03 1.24 8	T 3.58	.12 .03	.22 .01 .30 .14	.02 .02 .07 .03	.03	.14 1.04 1.14	T	.10	.17	.01 .01 .06 T	.07 .52 .19	.23 .14 .67	.03 .03	.01 T	.09 .50 1.26 .13	.18 .16	.06 .09 .14 T	.02	.29 1.09 .89 .35	.05	.01 .17 .29	.03 .02 .17	.06 .11 .82 .13	.08 .17 .38 .05	.02 .05 .15	т	.02 1	.20 .16	.20 · T · · · · · · · · · · · · · · · · ·
WAIAHOLE 837 WAIALOE KANALA 715 WAIALUA 847 WAIALUA 847 WAIANAL 798 WAIANAL MAUKA 803 WAIANAE MAUKA 803	13.15 2.21 1.50 1.47 7.33	.46 .27	.50 .05	1.48	* 0 3 T	.59 T	.04 .02 .03	.05 T		e T	2.85 T .02	.09 .01 T	.02 T	.06	.17 .05 T	* T	* •04	1.65	.25 T		1.16	.97 .05 .05	* .02 .01 .22		2.07 .08 .15	.15 .02 .01	.73 T .03	.14		*	.07	.69 .
MAIAWA 836 MAIKANE 885 MAIKIKI 717,2 MAILUPE RESERVOIR 170 AAIMANALO 794	15.43 14.23 .91 3.99 5.32	.32	. A6	1.77 .45	.01	•	* T 1.56	R 0 . S	.08 .08	:	0 3.40 0				4.00 T		•	2.18 T	• • • • • • • • • • • • • • • • • • • •	.40	. 61	4.57	* T # .02	:	4.80 #	*	* * * T		3 • 38 *	:		.80 . 2.08 . .02 . .60 .
WAIMEA 892 A WAIPAHU 750 A WILHELMINA RISE 721	3.46 1.89 3.78		*35	•22 •93	.14	.24 T	.07 1 .06	. 24		e • 04	.53 .58 .30	•02	•01	T .12	.01 T	:	• • • • • • • • • • • • • • • • • • • •	.97 .01	.08	.02	.27	•25 •23 •36	.08	• 06	.37 T	.08 .26	•11	•12			. 42	.10 . .13 .
																												1				

Continued											1 1		1	<b>71</b> 1	11	A	111	JIV												HAWAI:	1	1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15LANO OF MOLOKA1																												-	20	20		
KALAUPAPA 563 KAUNAKAKAI 536 A KEONELELE PEN5 551 A KUALAPUU 534 A MAPULEHU 542	1.50 .00 3.13 .84 2.73	T	.50 *	1.00 .15 .30		* •07 •22	.10	T * •01	* •15 •40	R 0	* •05 •05	.40 * .03	* .05	* *02 *15	* T	T *	* * .18	.10 * .04 .05	T * • 01 • 19	T #	.30 e	2.13 .16 .19			.05	T •03	•11		•10	Ŧ		T .
MAUNALOA 511 MOLOKA1 AP 524 PUUOHOKU RANCH 542.1 WAIKOLU 540	2.76 1.13 2.48 8.86	.70 .80	T e	* •10 2.82	15 15	.10	.02	.03 .45	.15 *	.10	T 1.75	.02 T	.01	T +45	•01 T	*15	•05 •20	.98		, O B	• <del>4</del> 0	.01 .04 .15 2.50	1.53 .10			•10 •16		.01	•10		1 •05 •65	:
ISLANO OF LANAL																																
KANEPUU 690 A KAUMALAPAU HARBOR 658 A LANAI CITY 672 LANAIHALE 684 A MAHANA 694 A	7.46 1.83 7.45 7.72 9.11	*	.30	.70 .15	:	* T *	2.90	*	* 08 2.14 *	* T * *	.16	* 13 * 41 *		.66 I.70	:	*		.02 .08	.01	* 01 * *	.01 1.33	.90 1.97	* 04 *	*	:	:		1.65	:	*	* 09	.08 . .01 . .14 . 9.11 .
MALAUEA 676 A WAIAKEAKUA 685	.70 3.14	:	*	1.30	•	•	*13		*		* •99	.14	۰	•39								* •68	*	*	•	:	•	*18	•			.03 .
15LANO OF MAUL																																
AUWAH1-252 A HALEAKALA B E 5 434 A HALEAKALA RANCH 432 A HALEAKALA R5 338 HALEAKALA SUMMIT 338.4	7.30 4.43 3.88 2.28 2.78	.03 .014	.05	.02 * .01	•08		6.40 .04 * T	.76 .25 .51	1.08	* T	.35 *	.01 1.40	.07 * .02	.35 .05 .09	.06	:	* * T *	•15 •55 • •24 •22	•03 •	•01	.04 * T	.40 .81 1.07 .20	.01	•02 •53 •06	e T		• 04	• O 3		*		*18 * T
HAL11MAILE 423 HAMAKUAPOKO 485 HANA 354 HANA AIRPORT HANAHUL1 281	3.96 5.28 4.32 6.88 6.43	2.32	.40	T	.05 .13 .15 .25	.15 .04 .13 .10	.01	.05 .12 .12 .16	.68 .22 .16	* T	.82 .07 .31	.01 .37 .41	.05 .06 .12 T	.40 .16 .17 .18	.02 .01 T	.02 .07 .18	.20 .15 .25	•10 •13 •22 •12 •40	•23 •18 •19 •27	.06 .05 .08	.12 1.06 .21 .31		.48 .10 1.15 1.05	.47 .21 .01	.18 .02 .03	.01 .12 .12 T	.05 .11 .38	.27 .07 .03	•01 T	.32 1.05 .12 .05 .25	.27 .11 .22	T .05 .02 .09 .
HOLUA CABIN 259.5 A HONOKOHAU 480 A HONOKOHUA 493 A HONOMANU GULCH 341 F KAHOMA INTAKE 374 A	2.51 14.76 3.73 5.20 8.17		•	.29	.07	* *21	.06	.07 .85		*	* *61 *	.14	*	1.26	* *07 *	:	*	* * 17 *	.14	.03	.20	* * *66	* * *		* •19 •4.57	.11	• 03	• 04	* •02 •	*	* 1	1.25 . 4.76 . .43 . 5.20 .
KAHULUI WB AP KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAHUA 410	1.12 8.62 15.38 4.63 1.72	7 *37 *	.07	T .02	T *25	.01 * .09 1.63	T * .05 * T	1.25 T	1.40	.02	T ** .07 .96	.37	T *28 *	.01 * 1.00	* •11 †	.18	T * • 35 • T	T * • 52 • 33	1.04	.03 .11	.39 .33	.51 .66	7 2.11 *	1.57	* •05 1•07	7 * •35	T **	.58	.06	.35 1.12 .12	.56 .01	8.82 . .05 . .64 .
KEANAE 346 KEAMAKAPU BEACH 260.2 KIHEI 311 KIPAHULU 258 KULA HEIGHT5 323.2	25.90 .71 .36 6.90 3.44	.58 .10 .25	.02 .07		*	•	• 05	.09	.10 .80 1.64	•	.15	.83 .07	.04	• 53	•	.26	.40	.65	.29	*	.04 .07	.07 .22 1.19	.99	.14	.16	.16	• 34	.09	٠	.18	.11	25.90 .
KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUP1 UPPER 442 A	4.53 .65 3.25 .59 14.40	.52 .48 .33	.75 .03		*				1.40 •11 *		.05	.04								:	.20	•71 •03 •	T •			T	**					3.25
MAHINAHINA 466 A NAKALELE -FLO 60-497 A OLINOA 332 A OLOWALU 296 OLOWALU GULCH 377 A	5.38 3.63 4.98 .44 3.60	*43 * * *32	* 22	*25 •70	*	.22 * .08	.03 .01	.08 * .46	*77	:	1.21	.03	.03	.08 e .01	* T	:	.30	•11 •64 •02	*12 T	*01	.01 .10	2.00 * .66 .02	.10	:	.47 1.53		.10 * .04	.07 T		.22 e e	•	1.06 · T · 3.60 ·
PAAKEA 350 PAIA 406 PANILEIHULU 259°2 A PAUWELA 490 A POMAKEA BRIOGE 307°2	20.58 2.37 6.00 6.35 .98		:	.10	.02	.11 .05 *	.35 T .06	1.43 .01 .79 .01	2.56 .37 .76 .15	.03 e	•11 • •06	.63	.35	1.77 .11 .24 .01	.07 T	.05	.95	.01	.88 .04 e	.15 .03 	.40 .40 # .24	.12 .02	3.18	•72 •38 •	•10 • •85	***************************************	•72 • •43	•31 •07 •		1.78 .66 1.07 .03	.03	.03 . 6.00 . .08 .
POLIPOLI SPRINGS 267.2 A PUOHOKAMOA 2 343 A PUU KUKUI MAKAI 472 A PUUNENE 396 SPRECKEL5VILLE 400.2	6.58 25.10 8.80 1.58 1.84		:	*	* * T	4.56 * *	.04	* T	* * •53 •43	:		•	1.42 *	.01 .04	:	:	.03			.04 #	.07 .36	* * •18 •06	:	.07	*		e56 *			.35 .49	.02	8 · 80 ·
TWIN GATES 261.3 A UKULELE 333 A UKUMEHAME 301 A ULUPALAKUA RANCH 250 WAHIKULI 364 A	2.61 4.55 .77 5.69	.42 2.37	2.31		*	.07	*	:	.60 .29	•	.63	.12		*	:	:		.06	:	*	* •23 •40	.30 .04 .07	*	*	*	•08	.05	:	:	•	:	4.55 ·
WALEHU CAMP 484 WALHEE VALLEY 482 WALKAMOL 649 A WALKAMOL OAM 336 A WALKAPU 390	2.37 4.16 20.50 15.73	.10	:	* •56	.02	* •91 •02	.04 .03 .03	.01 .10 2.38	1.10 * *	:	.10 .03 * 3.05	.02 .10 .63	* 32	.03 .14 * 1.33 .05	* 09	:	:	* 1.90	.10 e .56	•10 •14 •	.45 .64 .24	.10 .14 .74 .30		*	# +99	* +27	* 12	.23		.33 1.05 	.43 .40 .2	20.50 . .87 .
WAILUKU 392 WAIOPAI RANCH 256 A	2.12	-	-	-	-	-	-	-	•	-	-	-	-	•	-	-	-	-	•	•		2.12	-	-	-	•	•	-	•	-	•	• :
15LAND OF HAWAII																																
AHUA UM1 75 A AWINI 182.1 A EAST HONDKANE 183B A HAINA 214 HAKALAU 142	5.40 16.41 17.75 4.21 14.44		*	:	* * .09	.35 .09	.03	3.43 0 1.44 .68	* ** *11 2.60	:	* 1.12 * .05	.16	.40	.05 .02	• 23 • 03 • 33	* * * * * * * * * * * * * * * * * * * *	.94 1.04	5.36 .29 .54	.54 .05	• 26	.01	.03 1.52	2.80	• • •04 •50	• 53 • • 02		.09	1.45 # .06 .40	.38 .08 .25	• • •43 1•00	• 03 • 72	5.40 . 1.62 . 17.75 .
HALEMAUMAU 52 A HALEPJULA 117 A HALEPOHAKU 111 A HAWAII VOLCN5 NP HO 54 HAWI 168 A	2.56 2.15 1.47 8.25 4.43	.16	* * T	* T	.05	.10		.06 .09	* * !.27	* * *12	* * .01 .58	.45 .30	.03		• • • 03 • 05	•		1.50	.03	.07	.12	.59		* * * * * * * * * * * * * * * * * * * *	.08	.02	.29 .01	.09	.03	.03	.04 .17	.50 .
HILO WB AIRPORT R HOLUALOA 70 A HOLUALOA BEACH 68 A HONAUNAU 27 HONOHINA 137	14.03 12.40 4.07 13.61 14.69	2.00	.15			•15	.95		.03 3.02	.01 .02 .02	.26 .61 .47	.46	.09 .72 .29	.19 2.14 .25	.43 .28	.01 .27	.01	.47	•01 •37 •04	.01	1.66	• 5 5 • 6 5	.05	1.10	• 6 B	.74	.22	.11	• 30	.04	1.24	.02 .
HONOKANE 181.1 A HONOMU MAUKA 138 HONUAULA 71 HUALALAI 72 HUEHUE 92A A	14.91 28.64 5.20 2.60 5.44		:	*	.47	.44	.07	2.31	6.55 e e	.48	.69	.02	.90		.12 .33 * 4.47	.53 e	2.39		.32	.04	.12	.26 2.20	3.27		0		.61	2.60	.30 .43 5.20	1.22		.12 .
KAALA 1K1 12 A KAAWALOA 29 A KAINALIU 73B KALAPANA NO 1 67.8 KAMAOA NO 2 5 A	3.87 6.54 10.68 6.79 2.89	.09	2.48	.10 .86 .03		.03 .13	. 44	T *	1.00 e .98 .70	•17 •01	.15 .22 1.36 .12	.36 .14 .16 .04	.20 .29 .03	.07	1.23 1.02 .08	•03 •36	.66 .41	.05	.07 .56 .31	•72 •99	.71 1.13 .21	.15 .51 .62 1.43	.56 e .03 1.91	.62 .10	.53 .20	T + 4-4- T m		.23 .15 .13	.09	.02 T	•19	105 · T · · · · · · · · · · · · · · · · ·
											Se	e Refe	rence l	Notes F	ollowin	ig Stati	ion Ind	÷Χ														

- 79 -

Continued																															JULY		1967
Continued		-		_										_	Day	of M	onth																
Station		Tota	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
CAMUELA 192.2 CAMUELA AIRPORT CAPAPALA RANCH 36 CAPOHO LANDING 935 CAUMANA 88.1	A	2.86 1.10 5.19 11.28 26.73	T	•62	.09 .02 .05	.02 .01 .04	.06 .03	*02 T	.24 .10 2.00 .58	.14 .05 .79	.05 T	.20	T •25 •	.12 .06		1.61 .33	.16 .04 T	.14	.21 .15 .04	.16 .12 .05	.05 .02	T * •01	.16 T .05 2.65 2.05	.33 .15 		1.55	* 14	.91	.38		.72		* .
(AWAINU1 LOWER 193 (EAAU 92 (EALAKEKUA 26.2 (EMENA 181.2 (EMENA RESERVOIR 176.1	A A	17.92 19.15 7.41 9.65 6.32	*	.18	.02	.03	.20 .12 .15	.17 .01	3.35 .73	2.72 T	.03	.23	.21	.59 .26 e	.23	2.90 .32 1.33 *	* 32 *		.80 T	.02 .35	.98	.02 .83	5.87 2.98 .63 .02	3.28	2.05	.05	.17 .39	•48	.54 .13	5.80 .24 .26 .07	• 55 T	.44	9.65 .61
CIOLAKAA A 7 F 6 CIPA 89.2 COHALA 179A COHALA MAULILI 176 COHALA MISSION 175.1	A A A	5.52 31.56 5.90 8.59 7.55	T * T	.03	*	.06	• 68 • 10 • 23	.47 .01	.70 1.29 1.50 1.22	9.22	.81	.06 .73 1.03	.51 .15 .05	* 1.19 .13 .11 .17	.61 .01 .04	.40 .16 .05		3.28 2 * 1 * 2	.57	.62 .08 .08	.03 .08 .48 .12	.05 .02 .62	2.76 .07	2.30	1.75	.20 .20 .24 .08	.13 .06 .02	.47 .09 .04	.58 .35 .78	•05 •04 •06		5.52 .75 #	.12 . .82 . .91 .
COLAME LOWER 196 CONA AIRPORT 68+3 CUKAIAU 222 CUKULHAELE MIC 199 CUKULHAELE MILL 206	A	9.25 3.39 7.30 6.46 4.27		• 93	T .	.09	.02 .16 .08	.06	2.15 1.70 1.40 1.28	.69		.15 .03	.07	.54 .63 .37	.06 .03 .01	.53 .02 .05 .03	• •03 •05	1.44	.37 .28 .87	.16 .05	.03 .05 .08	.05 .07 .75	3.70 .84 T	T T	.20 .10		•02	•	.40 .11 .16		1.14	.60	.75
KULANI CAMP 79 KULANI MAUKA 76 KULANI 5CHOOL SITE 78 ANIHAU 68 C HANUKA 2	A A	12.68 4.32 18.70 10.67 4.86	.46	.70	.30	* 11	.09	.40	1.40	3.35		.20 3.08 2.05	.31	.56 .11 	.16 .16 .09 1.79	.06 1.26 .45 T	.05	1.10 4	.40	.06 .48 .11	• •72 •19	.05	.05 6.02 3.05	.70 .10	.75 .10 .10		.02 .05 .26 .15	•25 •10 •05	•	8.34		.05	.14
MAUNA KEA BEACH MAUNA LOA SLOPE 085 MIDOLE HOLUALOA 68.1 MIDOLE PEN 147.1 HOAULA 18	A	.15 3.66 6.11 .69	1.10		.08			:	.11	.05	:	.48 1.06		1.16		.05	:	.19	•01		•13	.15 .30 .39	.01 .15 .56	* 84	. 65	.06 .51	.07	.08	:	• 25	.87	.14	1.61
MOUNTAIN VIEW 91 NAALEHU 14 NAPOOPOO 28 NAULU FOREST 38.6 NIULII 179	A A	23.13 2.52 6.43 8.54 6.15		.08	.99	.02	.23 .09 .05	.57		4.37 .58 1.79	.04	.06 .73 .01	.57 .13 .49 .07	1.20 T .08	.18 .01	.03 .21		.25	.12 1.57 .44 1.35	.61 .03 * T	.07	.03	1.63 .15 2.33 .05		.28	.05 .23 2.71	.10 T	.53 .19 .22 .10	.54 .03 .50		•49	.66	.20 . .15 . .43 .
DOKALA 223 DPIMIMALE 2 24.1 DRCHIO LANO EST 91.5 PAAUMAU 217 PAAUILO 221	A	10.24 8.65 13.80 4.29 6.28		.49	.05	.10 .64 .07	.07 .01 .08		1.67 1.01 1.38 1.40	3.09 .10 .18 .54	.05 T	.02 .12 .73	.03 .15	.63 .21 .22 .52	*71	.10 .06 2.86 .01	*01	.71	.35 .16 .37	.21 .65 .03	.05	.63 .02	.01 .18 5.48 T		.28 1.22 .03 .14	.52	. 05 e	.06	.29 .05 .04	•10 4•45 •05		.05	2.33
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140.1	А	2.07 12.43 12.10 18.85 34.25	.25	.01	.03	.05 * .11 .25	.35 * .20	.12 * .24	.56	3.69 10.19	.16 .02 *	.04	.01 .13 .21 .35	.12 * .34 1.56		.31 .28 .40	.18	1.69		.06 .22 .45	• 02		2.10	.30 1.34 2.55 3.05	.83	.02	.16	.19		•12	.73	.42	.13 . 12.10 . .02 . .18 .
PEPEEKEO MAKAI 144 PIIHONUA 89 POHAKULOA 107 PUAKO 95A PUU KIHE 120	A A	14.38 37.40 1.45 1.03 3.14			.02	.36	.24		.90	.08	.06	.32	.20	*21	.67	.02	*09	.51	.02		.02	.06	2.03 .09 .04	2.92 * .02 .90	•38 • •51	• 26	.06	.35	.50	.15	•66		3.14
PUU LAAU 102+1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82	A	3.44 3.90 2.59 7.30 10.91	•	.13	:	.02	.25 .03	.01	0 0 1.60	1.81	.19	.83 .02	.02 .36	.16-	.02 .08	.02	:		2.60	• • •05 •10	* * •13 •05	.05 .03	.04	•	.47	.05	• • • • • • • • • • • • • • • • • • • •	.03	.67	• 03		:	3.44 3.90 2.59 .73 .15
PUU WAAWAA 94.1 5AOOLE ROAO 1 84 5OUTH POINT CORRAL 3 JM1KOA 118 JPOLU POINT USCG 159.2	A	5.64 30.52 1.23 3.89 3.42		•02	:	* •24	• • •13	• • • • • • • • • • • • • • • • • • • •		.14 .22 .31 .28	.02	:	.67	.44	.08	.01	•09	* •10 •27 •79	* * *36 *27	.05 * .04	• • • • • • • • • • • • • • • • • • • •	.03 .08	.30 8.90 .70		2.40 •32 •20 •02	:	• 02	.05	.02	6.90 .03	.18	•26	.02
MAIAKEA 5CO 88.2		26.33				.10	.38	.37	.52	7.70	.14	.21	.41	.93	.25	.57	.08	2.72	1.81	.48	.05	.08	2.08	3.44	.91	.11	Т	•92	.58	.36	.56	.45	.09 .

#### SUPPLEMENTAL DATA

		(	Win Speed -		)		Relati	ve hum per	idity ave	rages -		Numb	oer of d	ays with	precipi	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150°	TH MERII	DIAN TI	ME 8 PM	Trace	60 10	.1049	50-39	1.00-1.99	2.00 and over	Total	Percent of posmble sunshine	Average aky cover sunrise to su
HILO. HAWAII. WO AIRPORT	14	0.4	6.6	19	Е	. 20	85	80	70	81	1	7	14	2	. 3	2	29	2.8	8.0
HONOLULU, OAHU, WB AIRPORT	6	11.8	12.9	27	NE	17+	72	67	55	68	14	7	2	1	0	0	24	70	5.3
KAHULUI. MAUl. WB AIRPORT	5	12.0	13.1	28	NE	15	86	79	60	78	12	5	3	0	0	0	20	70	5.0
LIHUE. FAUAL, WB AIRPORT	6	10.7	11.7	23	NE	06+	81	76	6.8	7.8	5	14	5	1	0	0	25	73	7.0

HAWAII JULY 1967

		T							_		_	1.	ш				Of M		=												JÜLŸ		1967
Station		ı	2	3	4	5	6	7	8	9	10	11	12	13			16		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
* * *																															T <sub>max</sub>		EQ
ISLAND OF KAUAI																																	
KANALOHJLUHULU 1075	MAX	73	75 54	73 56	75 59	73 58	72 59	66 56	74 66	75 55	78 63	75 57	73 59	61 58	72 57	73 60	77 60	77 64	74 59	72 59	72 63	72 53	71 51	72 55	73 62		74 58	74 61	74 59	76 57		76 58	73.3 58.2
KILAUEA POINT 1133	MAX	86 75	85 73	86 71	85	86 71	86 71	87	85 74	84 75	85 74	85 72	84	86	84	84 75	82 73	81 71	86 73	86 72	81 73	83 74	87 72	85 72	85 73	86	86 73	84	86	86 71	86 74	87	85.0 72.6
LIHUE WB AIRPORT	MAX	86	84 72	83 75	84	85 73	84	85 74	83 73	83 75	83	84 76	83	83	84 75	84 76	82 76	83 76	84 75	84 73	83 71	85 71	85 76	84 75	84 75	86 76	86 72	85 73	86 74	84	85 74	85 74	84.2
MAKAHUENA POINT	MAX	89 71	90 69	87 73	89 71	85 75	86 73	86 74	87 74	87	87 74	86 72	86 75	86	86	86	83 75	86 75	85 73	86 73	86 72	87 74	89 73	87 73	85 74	86 73	85 73	86 75	86 76	86 75	86 74	88	86.5 73.3
MANA 1026	MAX	88	89 72	89 71	89 67	92 66	90 68	86 67	91 72	87 70	87 71	88	89	90	92	86	87 70	88 70	89 69	90 70	90 71	88	89	88	89	88	89	88	90 68	89	89	86	88.7
NIU RIOGE 1035	MAX	81	80	82 66	8 3 6 5	82 65	84	83 65	83	84 65	85 65	84	85 65	83	83	83	84	85 64	85 65	85	84	84 65	83	84	85 65	84	83	82	83	82	84	84	83.4
WAIAHI LOWER 1054	MAX	84 59	84	83	81	81 67	80	81	81	80	80	80	80	80	80	82	78 66	76 68	78 66	80 63	82	81	83	81	82	81	79 68	80					80.7
* * *														00	0,													0,		0,5	04		08.0
15LAND OF OAHU																																	
EWA PLANTATION 741	MAX	85 70	8 <b>7</b>	88 <b>7</b> 0	87 70	87 71	87	86 70	89 72	89 71	89 72	88 71	85 73	87	89 72	88 72	88 72	87 75	86 73	88	88 70	88	91 72	89 72	88	89 72	89 73	8 9 7 2	87 73	88	89 72	89 71	87.9 71.3
HONOLULJ W8AP 703	MAX	85	87	87 75	85 73	85 76	87 74	85 75	89 76	89 75	88	87 76	86 74	86 74	89 74	88 76	88	87 76	88	88	89 74	88	90 76	88	88	89 76	89 76	89	88 77	89 76	88	90	87.7 75.2
HONOLULJ SUBSTA 704	MAX	81	84 74	84	82 72	82 74	83	82	84 75	85 76	84 75	84 76	82	83	84 74	84 77	84	83 76	83	82	83	84	86 74	83	84	84 75	85 77	85 77	83	84 76	86	84	83.6 74.7
KAHUKU 912	MAX			85 65		83	83	83	.,	, 0	84 72	84	83	83	83			84	83 73	83	83	84			85	84	83	84 73	84	, ,	, ,	85 72	, , ,
KANEOHE MAUKA 781	MAX	82	85 71	85 72	84	82 72	84	83	81 72	83 73	83	82	83	83	83	84 72	83 71	83	81	83	83	85 70	83 75	85 72	84 74	82	83	83	84	8 4 7 4	84 75	79 72	83.1 72.5
MAKAPUU POINT 724	MAX	77	83	8 1 72	80 75	79 72	80	81	79 76	82	82 73	80	80 75	80	85 75	79	80 76	81 73	80	80	81 75	85 72	82 76	85 74	83	81	82 75	82	80 76	80 75	81	89	81.3
OPAEULA 870	MAX	78 68	81	84	84 71	82 67	79	80	86 72	81	82	82	81	87 68	81	82	80	80	76	79 67	80	85	79 67	85 68	80	80	79 69	81	81	80	80	85	81.3
PRI WAHIAWA 820.2	MAX		07	86 66	85	85 69	82	84	83 70	85	86	86 68	85	83	85 68	86 71	85 72	86 70	82	85 67	85 68	84	84	88	88	85 69	83	86	86 71	83	86	86	84.9
WAIALUA 847	MAX	84	85 68	86 67	86 70	87 68	84	85 65	84	87 70	86	87 66	85	68 85 66	85 67	86	85	85 72	84	86 68	84	85 70	84 70	88	84	86 68	86	88	86	85 69	85 67	91	85.6 68.2
WAIKIKI 717.2	MAX	84	89 73	85 72	88	87 74	87	88	87 75	89	87 74	88 75	88	87	87 73	88	89	90	88	89 72	88 73	90 73	90	92 75	89	90 74	88	89	88 75	88	90	90	88.3 73.7
* * *	21.		,,			, ,		, ,	,,	17	, -	,,		13	,,	,,		.,						.,					.,	, ,		13	,,,,,
ISLANO OF MOLOKAI																																	
MOLOKA1 AP 524	MAX		82 71	84	83	80 73	80		79 73	85 74		84 71	84		83 72	85			82 70	83 73	83 72	83	85 72	90	85	83	84 73			83 71			83.3 72.1
					' '	13	13	14	13	17	' 1	11	10	70	12	1	.,										,,,			•		,,	
ISLAND OF LANAI	1																																
LANAI CITY 672	MAX	80	80	81	77	74	78	79	75	78	78 65	78 67	78	76	76	78	77 65	79 69	77 66	74 64	77 69	81 67	79 69	79 67	81	78 67	77 67	79 68	77 68	77 68	78 68	79	77.9 66.5
* * *	1	0.9	07	80		0)	00	00	00	0)	0,	07	0,	04	04	04									1							7	
ISLANO OF MAUL	ï																																
HALEAKALA RS 338	MAX	59	64		68 50	63	65	64		67	66 51		65 47		62	66	69	66 54	69 57	73 52	72 48	68	65 49	66 51	65	65	67 48	71 57	71 58	73 45	68 45	66	66.5
HALEAKALA SUMMIT 338.4	MAX	**0	40	59	59	54 46	55	59 48	56	58	59		59	58	59 41				61	61	61	62	55 44	55 45	63		61		59	59 53	60	60	58.7
HANA AIRPORT	MAX	85	85 75	84 71		85 69	85		87	85 73	85 73	84 73	85	83	85 74			85 76	82	85 68	84 74	85 78	85	85	85	85	86		84	85 78	86 76	86	84.7
KAHULUI WB AP	MAX	86 71		-	84 71	85	86	82 73	87	85 67	85	86 73	84	86	87 72	86		87		83	91		88 73	87	86 72	87	86	86	86 73	86	91	90	
KAILUA 446	MAX	83	84 65	81	82		79		76	79		81		81			80	81	78 68	79	80	78 69	80	79	79	79		80	80	80		80	80.0
KULA SANATORIUM 267	MAX		72	75	74 59	73 60	73	75 61	74 62	73 58	73 59		71	74	73 57	75			75 61	73 59	73 60	76 63	74	78 61	74 58	72	76 61	75	74 59	76 59	75 60	76	74.3 59.8
LAHAINA 361	MAX	90		89	90	89	90	90	87	87	87		88	90	88	89	87	90	89	89	89	89	91	89	90	88	89	90	89	89	89	90	88.8
WA1LUKU 392	MAX	70	65	70	68	00	00	01		0,9	.,	07	07	. 0																			
	MIN																																
	1																																

#### DAILY TEMPERATURES

HAWAII	
JULY	

Continued									D	AI	LY	Τ.	EIV.	IPE	K.	4 I	UR	ES												HAV	JULY		1967
																Day	Of Mo	onth															age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
																_																	
ISLANO OF HAWAII																																	
HAINA 214	MAX MIN	87 67	87 67	87 67	8 6 6 7	84 68	83 66	83 66	83 68	83 64	84	87 70	81	84	84 68	83 68	79 69	8 2 7 1	86 69	87 66	85 66	89 69	83 68	83 69	84	84 70	85 69	84 70	80 66	86 68	85 68	86 72	84.3 67.9
HAWAII VOLCNS NP HQ 54	MAX M1N	72 53	74 56	75 54	72 50	70 55	68 54	72 54	72 54	69 56	72 57	65 56	65 56	69 53	69 55	74 58	72 61	71 59	69 57	74 56	76 58	70 59	70 58	77 58	84 56	71 57	73 56	70 59	85 56	72 58	72 58	72 58	72.1 56.3
HILO W8 AIRPORT	MAX MIN	67 68	87 71	85 69	85 71	85 71	85 70	85 72	8 4 7 2	87 71	83 71	85 70	85 71	82 68	86 69	84 72	84 73	84 72	84 74	85 69	86 71	82 71	84 70	84 71	85 71	83 71	85 69	81 72	85 72	85 73	84 72	84 73	84.5 71.0
KAINALIJ 738	MAX	82 63	80 65	80 63	80 64	80 63	8 1 6 3	81	81 66	83 65	80 63	79 65	78 66	80 65	77 63	81 63	82 65	83 66	81 67	79 63	81 65	80 65	83 65	82 65	78 66	79 64	80 64	82 65	80 66	79 65	80 64	80 64	80.4 64.5
KAMUELA 192.2	MAX	8 Q 5 7	81 56	8 2 5 8	80 58	75 60	74 60	73 63	75 60	75 62	75 61	75 61	73 60	75 60	72 61	74 62	70 64	73 64	73 60	75 58	76 56	80 59	75 61	81 62	73 60	74 61	74 60	75 60	75 60	72 61	77 60	82 60	75.6 60.2
KAMUELA AIRPORT	MAX	78 57	78 60	80 69	75 58	75 60	74 58	74 59	75 58	75 58	76 66	72 59	72 59	75 59	74 59	72 60	72 62	74 64	72 60	76 58	74 59	76 60	74 61	78 62	76 65	74 59	73 59	75 59	72 60	73 59	77 55	80	74.9 60.3
KEAAU 92	MAX MIN	87 66	87 66	87 66	87 66	87 66	84 66	85 68	86 69	86 69	86 69	80 67	82 68	84 68	82 65	85 66	85 66	85 66	82 70	85 68	85 68	85 68	85 68	85 68	85 68	83 68	81 68	84	80 69	84 69	84 69	84	84.4
KEALAKECUA 26.2	MAX	82 66	82 67	81 65	80 66	80 65	77 65	82 66	82 67	84 67	80 67	80 66	80 67	80 66	75 65	82 66	83 66	84 67	81 69	80 65	81 67	80 67	82 67	83 66	79 67	79 66	8 1 6 6	82 67	8 Z 6 7	78 66	81 67	82 66	80.8
KOHALA MISSION 175.1	MAX MIN	8 4 7 0	84 69	86 70	8 2 6 8	82 69	82 70	82 69	82 71	81 70	82 70	83 70	81 70	81	81	82 69	76 70	78 71	82 71	82 67	8 <i>2</i> 68	85 70	8 O 7 1	83 70	81 70	81 71	81 72	8 2 7 0	78 69	82 70	83 68	82 68	81.7
KONA AIRPORT 68.3	MAX MIN	84 70	85 69	85 70	85 72	87 66	84	84 68	86 70	85 72	85 70	85 72	84 72	85 72	81 70	85 72	86 74	86 75	86 74	86 74	85 73	85 70	85 74	86 74	86 75	85 70	85 70	85 71	85 73	84 70	85 70	85 71	85.0 71.2
KULANI CAMP 79	MAX	69 48	70 48	67 47		68 46	65	66 50	68 50	65 47	68 50	63 52	63	64 50	60 47	64 52	63 50	68 48	68 48	69 49	70 48	67 52	70 48	73 54	65 52	65 52	58 48	66 53	69 51	70 51	67 53	68 53	66.5
MAUNA KEA BEACH	MAX	88 72	88 74	88 72	95 74	93 68	94 67	89 77	87 75	90 74	90 74	90 74	90 69	92 62	88 71	89 68	93 76	88 75	90 75	93 72	90 72	8 8 7 5	90 74	89 75	89 73	88 74	88 74	93 70	91 69	92 75	88 74	90 75	90.0 72.5
PAUNA LJA SLOPE 085	MAX	54 38	61 39	58 40	59 38	59 39	61	60	56 39	56 37	55 39	56 38	60 39	57 37	5 9 4 2	60	52 42	59 41	58 38	60 37	57 37	53 38	51 35	51 37	53 37	58 38	62 42	59 41	58 37	55 37	52 36	56 37	56.9 38.6
MOUNTAIN VIEW 91	MAX MIN	81 61	85 65	83 63	83	8 Q 6 3	78 62	79 62	78 64	77 62	82 63	74 64	75 64	78 61	75 61	80 63	73 67	76 66	74 66	79 61	82 61	78 65	77 64	77 65	75 63	78 63	77 62	81	76 68	78 63	80 64	78 66	78.3 63.4
NAALEHU 14	MAX	81 69	81 69	81	82 68	83 67	81 68	83 72	83 72	82	82 69	79 70	80 71	8 2 6 6	78 69	81	81 69	84 71	81 71	83 67	84 71	82 69	8 Z 6 9	82 69	82 68	82 70	82 70	83	81 68	82 70	82 70	84 70	81.8
OOKALA 223	MAX	83 69	84 69	85 72	84 68	83 68	83	82 69	84 70	82 70	83 70	83 69	81	82 67	80 66	81	79 69	8 2 70	84 70	84 69	85 69	83	81 70	84 68	81 71	83 70	83 71	83	79 70	80 70	82 70	82 73	82.4
DP1H1HALE 2 24.1	MAX MIN	79 64	78 62	77 63	8 1 6 4	76 62	81 63	83 64	85 66	86 67	85 66	84 64	84	81 63	84 64	83	84 63	82 69	80	8 4 6 5	8 2 6 6	81	84 63	80 65	79 66	8 O 6 4	82 64	83 65	82 63	86 66	84 65	80 65	81.9
PAHALA 21	MAX MIN	79 64	8 2 6 4	81	8 2 6 4	87 64	80 62	83 68	83 69	80	80 63	78 65	82 67	82 63	80 65	83	83 67	81 67	80 70	85 66	85 67	81	81 66	82 67	8 l 65	81 65	82	84	82	85	84	85	82.1
UPOLU POINT USCG 159.2	MAX	86 71	85 71	88 73	85 70	83 71	84	84 72	84 73	85 73	85 72	84 74	84	83 70	84 71	84	85 73	84 73	86 73	8 4 71	8 4 7 3	88	8 <b>3</b> 73	86 71	84 73	84 73	84 72	84 73	83 76	84 71	85 72	86 74	84.6 72.3

#### EVAPORATION AND WIND

G. II.																Day	Of M	onth															18 L 60
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16,	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
SLANO OF KAUAI																																	
LIHUE W8 AIRPORT	EVAP WINO MAX MIN	56 92	51 95	70 92	146	196	194	161	127	100	118	146 93	204 92	147	169	146	180	184	177 92	141 88		71 92	128	154 92	158	173	160	156	197	185	145 91	108	10.41 4437 91.1 70.2
SLAND OF OAHU																																	
HONOLULU 085ERV 702.2	EVAP WINO MAX MIN	27 97	25 100	33	54 97	38	92	•32 45 95 71	.16 28 92 72	•30 40 97 73			.38 59 97 73	93	48 95	52 97	•35 62 95 73	95	91	45 93	36 98	98	•30 48 93 74	98	21 96	45	45 94	57 95	60 97	.40 49 94 71	33 94	31 97	9.20 1319 95.4 73.0
SLANO OF HAWAII																																	
HILO WB AIRPORT	EVAP WINO MAX MIN		96	68	75 93	90 88	77 89	- 49 84 70	61 83	·24 68 91 70	45 84	69 84	.33 80 94 71	.15 44 84 68	.17 81 92 67	.13 65 82 69	.06 66 82 71	51	66	63	72 83	28 80	61	47 87	50 92	29 84	57	.05 37 81 72	91	72 91	.05 53 81 71	62 87	5.60B 1931 87.4 69.7

	NO.	NO	+ 35	DE	UDE	NOL	T	ERVA IME A				NO.		DE T	UDE	NOI	T	SERVA	ND	JULY 1967
STATION	INDEX	DISTRIC	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		PRECIP.	-	OBSERVER	STATION	INDEX NO	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	PRECIP EVAP.		OBSERVER
ANAHOLA 1111 A BRYDESWOOD STA 985 A EAST LAWAI 934 A EKW 3 RESERVOIR 1094+1 ELEELE 927 A HALAULA 1110 A	0145 0240 0456 0465 0470 0935 1038 1170	02 KOLOA 01 KAWAIHAU 02 KOLOA 02 KOLOA 02 KAWAIHAU 02 KOLOA 01 KAWAIHAU 02 LIHUE 01 KAWAIHAU 03 WAIMEA		2 21 57 1 22 09 2 21 56 2 21 55 2 22 06 2 21 54 1 22 07 2 21 56 1 22 05 3 21 59	159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28	1610 116 720 440 350 163 253 490 1218		7A 7A 7A 6A 7A 8A	C C	HC BRYDE SUGAR CO. LIMUE PLANTATION CO MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD LIMUE PLANTATION MC BRYDE SUG CO LTO GROVE FARM CO LTO SCHOOL FARM CO LTO SCHOOL FARM CO LTO KEKAHA SUGAR CO LTO	LANAI CITY 672 LANAIHALE 684 HAHANA 694 HALAUEA 676 WAIAKEAKUA 685	A 3461 0 5286 0 A 5301 0 A 5704 0 A 6012 0	LAHAINA LAHAINA LAHAINA LAHAINA LAHAINA LAHAINA LAHAINA LAHAINA	1 20 53 1 20 47 1 20 50 1 20 49 1 20 53 1 20 46 1 20 47	157 00 156 55 156 53	1640 30 1620 3370 1430 1135 2040	7.A	W1 8 F 7A W1 MC WI WM	200	DULE COMPANY DULE COMPANY DULE COMPANY DULE COMPANY OULE COMPANY OULE COMPANY DULE COMPANY
ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086A KALIHIWAI RES 1131 A KANALOHULUHULU 1075 KANEHA RESERVOIR 1U92 A KAPAA STABLES 1104 A	2222 2227 2974 3099 3104 3154 3982 4272	02 LIHUE 01 HANALE! 01 HANALE! 03 #AIHEA 01 KAWAIHOU 01 KAWAIHAU 01 KAWAIHAU 03 WAIHEA		2 22 02 1 22 09 1 22 11 3 22 08 1 22 08 1 22 08 1 22 06	159 28 159 34 159 26 159 40 159 22 159 20	1070 690 400 3600 800 175 9 9 317 415		7A W1 7A 0A 7A 7A 6A 7A	E 0 0 0	LIHUE PLIN CO LTO S MC BRYGE SUG CO LTO KILAUGA SUG PLIN CO KANALOHULUHULU R. S. LIHUE PLANTATION LIHUE PLIN CO LTO KEKAMA SUGAR CO LTO KILAUGA SUG PLIN CO FILAUGA SUG PLIN CO	FIELO 46 474 HAELAAU 477 HALEAKALA B E S 434	A 0995 0 A 0999 0 1004 0 1008 0 1016 0 1075 0	G LAHAINA G LAHAINA H LAHAINA H HAKAWAO H HAKAWAO MAKAWAO H HAKAWAO H HAKAWAO H HAKAWAO H HAKAWAO		156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8A 8	7# 6# 8A 8A 5A 5A		ULUPALAKUA RANCH MAUI PINEAPPLE CO. S MAUI PINEAPPLE COMPANY U OF HAWAII EXP STA HALEAKALA RANCH CO HALEAKALA HAT PARK U OF MICH MI HKALA OBS' HAUI PINEAPPLE CO. HAWAIIAN COM + SUG CO HARRY HASEGAWA
KOLOA MAUKA 994  KOLOKO RES 1137  A  KUKUJULA 935  A  LIMUE VARIETY STA  LIHUE 1020  A	4735 4742 4750 4758 4950 5560 5575	01 HANALE I 03 HAIMEA 03 WAIMEA 02 KOLOA 02 KOLOA 01 KAWAIHAU 02 KOLOA 02 LIHUE 02 LIHUE 02 LIHUE		2 21 59	159 41 159 46 159 28 159 29 159 23 159 30 159 23 159 22 159 21	180 2150 36 240 640 737 100 375 207 103		8A 5A 5A 7A 6A 7A 7A MID	eak; j	U S COAST GUARD REKAMA SUGAR CO. REKAMA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO C BRYDE SUG CO LTD HAWAIIAN SUGAR PL ASSN LIHUE PLTN CO LTO U S WEATHER BUREAU	HANA AIRPORT HANAHULI 281 HOLUA CABIN 259.5 HONOXONAU 480 HONOXOHUA 493 HONOLUA FUL 49 494 HONOMANU GULCH 341 1AO NEEDLE 387.2 KAHOMA INTAKE 374	1125 0 1148 0 A 1552 0 A 1882 0 A 1887 0 A 1914 0 A 1935 0 2208 0	1 HANA 1 HANA 2 MAKAWAU 4 LAHAINA 6 LAHAINA 1 HAKAWAO 3 WAILUKU 9 LAHAINA	1 20 48 1 2C 41 2 20 45 4 20 58 4 21 00 4 21 01 1 20 47 3 20 53 4 20 54	156 01 156 01 156 13 156 36 156 39	61 325 6930 870 135 125 6280 1100 2000	111	11A 7A HO HO 6A HO	c	HAMAILAN AIRLINES KOALI RANCH HALEARALA NATL PARK RG: MAUI PINEAPPLE CO HAUI PINEAPPLE CO SHAUI PINEAPPLE CO SHAUI PINEAPPLE CO STATE DIVISION OF PARK: PIONEEP MILL CO LID U S WEATHER BUREAU
M + M 1001 HOHIH1 UPR CROSS 1083 MOLDAA 1145 A	5864 6082 6097 6433 6529 6565 6850 6888	OI WAIHEA		3 21 55 3 22 02 2 21 55 3 22 07 1 22 11 2 22 04 3 22 02	159 28	52 140 11 300 3500 330 5075 1250 1110 650	9,1	8A 7A 9A M1D 7A 6A 7A		U S COAST GUARO OLORELE SUGAR CO REKAHA SUGAR CO LTO GROVE FARM COMPANY S U S GEO SURVEY LIHUE PLANTATION CO. S U, S. GEO, SUPVEY REKAHA SUGAR CO LTO LIHUE PLIN CO LTO S LIHUE PLIN CO LTO	KATLIILI 436 KATUAN 446 KATUAN 446 KATUAN ATTENDE 375 KANPO RANCH HOUSE 259 KEANUA 410 KEANAKAPU GEACH 260.2 KIMEI 311 KIPAMULU 258 KUNUI 380	2630 0 2679 0 A 3433 0 3576 0 3910 0 A 4091 0 4193 0 4489 C 4634 0	I HAKAWAO 1 HAKAWAO 4 LAHAINA 2 HANA 3 MAKAWAO 1 HANA 2 MAKAWAO 3 WAILUKU 1 HANA	1 20 51 1 20 54 20 53 2 20 39 20 52 1 20 50 2 20 47 1 20 39	156 16 156 13 156 38 156 08 156 23 156 10 156 27 156 27 156 04	2520 700 1585 1020 480 980 260	7	HO	K	E MAUI IRR CO LTO E MAUI IRR CO LTO E MAUI IRR CO LTO KAUPO RANCH HAMAILAN COM + SUG CO E HAUI IRP CO LTO A - L - COPELL HAMAILAN COM + SUG CO KIPAMULU CATTLE COMPAN' S MAII PINFAPPIF CO
STABLE CAMP 1055.1 WAH1AWA 930 A	821 8573 869 8941 8949 895	01 HANALEI 03 WAIMEA 02 LIHUE		2 21 58 2 21 57 2 22 04 2 21 54 2 21 58	159 34 159 29 159 42 159 24 159 27 159 37 159 34 159 31 159 27	101 295 1660 329 420 740 215 2100 565 780	6.	6A 7A 8A 8A 7A MO 6A 8A	44	MC BBYOE SUG CO LTO PRINCEYLLE PANCH KEKAHA SUGAR CO LTO GROVE FARM CO LTO GROVE FARM CO LTO GROVE FARM CO LTO LIHUE PLANITATION CO. MC BBYOE SUG CO LTO MC BBYOE SUG CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO	KULA HEIGHTS 323.2 KULA SANATORIUH 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372	5003 C 5006 0 5177 0 A 5404 0 A 5408 0 A 5665 0 A 5715 0 6042 C 6521 0	Z MAKAWAO Z MAKAWAO 4 LAHAINA 4 LAHAINA 6 LAHAINA 6 LAHAINA 7 MAKAWAO 9 LAHAINA 8 WAILUKU 6 LAHAINA	2 20 47 2 20 42 4 20 53 20 51 1 20 53 20 57 20 57 4 20 59	156 19 156 22 156 41 156 37 156 39 156 15 156 40 156 32 156 37	2520 3004 45 1280 220 1240 715 1040 129	7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A	6A 7A 7A VAR 7A MO 7A	c	RENNETH WILLEY KULA SANATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTD E MAUI 1RR CO LTD PIONEER MILL CO LTD B S OF A COUNCIL MAUI PINEAPPLE CO
WAIMEA 947 WEST LAWAI 931 A ISLANO OF OAHU	946 9629 9955	03 WAIMEA 02 LIHUE 03 WAIMEA 02 KOLOA		2 21 54	159 21 159 41 159 31	10 50 20 210		8A 7A 8A 6A		KERAHA SUGAR CO LTO LIHUE PLANTATION WAIMEA SUG MILL CO MC BRYDE SUG CO LTD	OLINDA 332 OLOWALU 296 OLOWALU GULCH 377 PAAKEA 350 PAIA 406 PANILEIHULU 259.2 PAUWILA 490 POHAKEA 8RIDGE 307.2	7059 0 A 7066 0 7194 0 7566 0 A 7674 0 A 7857 0 8060 0	1 MAKAWAO 4 EAHAINA 4 EAHAINA 1 HANA 1 WAILUKU 2 HANA 1 MAKAWAO 3 WAILUKU	4 21 02 1 20 48 20 49 4 20 51 1 20 55 2 20 41 1 20 55 2 20 42	156 17 156 38 156 36 156 07 156 23 156 08 156 19	800 1260 170 3570 481	7	VAR 7 M 6 6A WI 7A 6	×	MAUI PINCAPPLE COMPANY MAUI CO *ATER OETT PIONEER MILL CO. PIONEER MILL CO LTD E MAUI IRR CO LTD CAMPAIL IRR CO LTD CAMPO PANCH CO. HASEROI PINCAPPLE CO. WAILURU SUGAR CO.
BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT ISLANO 840-1 DOWSETT HIGHLANOS 78C- EXA PLANTATION 741 HALAWA SHAFT 771-2 HALAWA SHAFT 771-2	0211 030 0340 0350 0438 0507 096	02 HONOLULU 03 EWA 01 KOOLAUPOK 01 KOOLAUPOK 02 HONOLULU 03 EWA 02 HONOLULU	(0	2 21 19 3 21 25 1 21 39 1 21 26 2 21 21 3 21 21 2 21 23 5 21 33	157 51 158 04 157 56 157 47 157 50 158 02 157 54 158 00 158 06	20 680 20 13 565 42	8 1	7A 5P 8A 7A WI VAR	0 000	WAIAHOLE WIR CO LTO BOARO OF WIP SUPPLY OEL MONTE CORPORATION RICHARD COBURN U OF H HARINE LAB J. L. BANNING EMA PLANTATION CO BOARO OF WATER SUPPLY WAIALUA AGE CO LTO M. V. VON HOLT	PULIPOLI SPPINGS 267.2 PUDHOKAMUA 2 343 PUU KUNUI MANAI 472 PUUNENE 396 PUU PARI 352 SPPECKELSVILLE 400.2 TMIN GATES 261.3 UKUI FIE 333	A 8070 0 A 8336 0 A 8444 0 8543 0 8553 0 8688 0 A 8742 0	2 MAKAWAO	2 20 41 1 20 50 20 55 20 53 1 20 46 3 20 54 1 20 48 4 20 48 2 20 39	156 20 156 13 156 38 156 27 156 03 156 25 156 23	2980 2500 60 2160 89 1310 5230	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MAR MAR VAR WAR MAR		STATE OLV OF FORESTRY E MAUL IRR CO LTO PIONEER MILL CO LTD HAWAIIAN COM + SUG CO S EAST MAUL IRRIGATION CO HAWAIIAN COM + SUG CO KAONOULU RANCH HALEAKALA RANCH CO PIONEER MILL CO LTO ULUPALANUA RCH CO LTO
HONOLULU OBSERV 702-2 HONOLULU WBBP 703 R HONOLULU WBBP 703 R HONOLULU SUBSTA 704 H S P A EXP STA 707 KAALAKEI 720-6 KAMANA 883 A KAHUKU 912 KAILUA FIRE STA 791-3 KALIHI RES SITE 777 KAMEHAME 724-7	2960	02 HONOLULU 02 HONOLULU 02 HONOLULU 02 HONOLULU 01 KOOLAULO	A CO	2 21 20 2 21 19 2 21 18 2 21 18 1 21 31 1 21 41 1 21 24 2 21 23	157 52 157 50 157 43	50 10 800 25 10 910	MIT 8A	9A M1D M1D 8A W1 8A 8A M10	9A C C C	U S COAST + GEODETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU H S P A EXP STATION MBS. MILLIE ZAPATA WALAHOLE WTR CO LTD NAHUNU PLTN CO KALUA FIRE STATION BOARO OF WTR SUPPLY MANAIL NATIONAL GUARD	ULUPALAKUA RANCH 250 WAHIKULI 369 WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 0AM 336 WAIKAPU 390 WAILUA IKI 348 WAILUKU 392 WAIOPAI RANCH 256	9275 0 9315 0 9332 0 9335 0 9371 U	WAILUKU	4 20 54 3 20 55 4 20 57 1 20 52	156 40 156 31 156 32 156 12 156 14 156 31	1900 580 320 300 1200 4320 470 2630 220		BA BA 6A 6T WHI VAR 6-		ULUPALANUA RCH CO LTO PIONEER MILL CO LTO WAILUKU SUGAR CO E MAUI FRE CO LTO MAUI COUNTY WIP OPPT WAILUKU SUGAR CO SEAST MAUI IRPIGATION C ST. ANTHONYS BOYS SCH MALEAKALA RANCH CO
KOOLAU OAM 833 LUALUALEI 804	3123 3220 3268 3734 3741 382 431 476 5647	02 HONOLULU 05 WAIALUA 05 WAIALUA 02 KOOLAUPOI	0	1 21 23 1 21 36 2 21 21 5 21 35 5 21 34 1 21 40 5 21 33 21 30 21 26	157 52 158 11 157 59	365 10 614 20 1180 1050 725 1160		78 8A 7A W1 74 88 7A	c	STATE HOSPITAL  SANEOME RANCH CO GEORGE H. SMIFT  KAMEHAMEHA SCHOOLS  NAIALUA AGR CO LTO  SANEOME LE NAIALUA GUARO  C + F OFFICER HEOG  USN AMMUNITIUN DEP  U. S. NAYY  U. S. NAYY  U. S. NAYY	ISLAND OF HAWAII AHUA UMI 75 AWINI 182-I EAST HORKANC 183U HARALAU 182 HALEHAUMAU 52 HALEPIULA 117 HALEPULA 117 HALEPULA 117 HALEPULA 117 HALEPULA 117 HALEPULA 117 HALEPULA 117	A 0040 0 0190 0 0450 0 0840 0	5 N KONA 1 N KOMALA 1 S KOMALA 1 HAMANUA 2 S HILO	5 19 38 1 20 10 1 20 07 1 20 06 2 19 54 3 19 24 1 19 56 2 19 46	155 47 155 43 155 43 155 28 155 08 155 17 155 24 155 28	5220 1870 4240 461 109 3640 5770 9220	7A	MC WI M - 7 - 7A HC MC 8A	L	GREENWELL RANCH KOHALA OITCH CO LTO KOHALA OITCH CO LTO HONOKAA SUGAR CO HEYER CO- HAWAII NAT PARK KUKAIAU RANCH CO STATE OIV. OF PARK HAWAII NAT PARK
LULJKU 781.7 LUNALILO HOME 724.2 MARAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUW POINT 724 MANDA 712 MANDA TUNNEL 2 716 MAUNAHILI 787.1 MOANALUA 770	5655 5675 5764 5781 5800 6122 6130 6222 6395	01 KOOLAUPOI 02 HONOLULU 04 WATANAE 04 WATANAE 02 HONOLULU 02 HONOLULU 02 HONOLULU 01 KOOLAUPOI 02 HONOLULU		1 21 24 2 21 17 21 28 4 21 29 2 21 19 2 21 19 2 21 20 1 21 21 2 21 21	157 49 157 42 158 13 158 12 157 39 157 49 157 48 157 46 157 54	240 40 25 160 538 220 650 410 20	ВА	7A 7A 8A 8A 8A M*D	c c	MILNOR LUM LUNAL HLO HOME CAPITAL INVEST CO CAPITAL INVEST CO U.S. COAST GUARD MRS.JOHN H.BEAUMONT BOARD OF WIP SUPPLY EXP. STA. H.S.P.A. JOHN A ROXBURGH	HILD WB AIRPORT HOLUJALDA 70 HOLUJALDA BEACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181-1 HONOMU MAUKA 138 HONOMU MAUKA 138	P 1492 0 A 1557 0 A 1562 0 1665 0 1701 0 A 1864 0 1960 0	2 S HILO 4 N KONA 4 N KONA 5 KONA 2 N HILO 1 N KOHALA 2 S HILO 4 N KONA	1 20 14 2 19 43 4 19 38 4 19 37 4 19 27 2 19 56 1 20 09 2 19 51 4 19 40	155 50 155 04 155 55	3220 3220 1086 300 800 1100 6250 8190	7 M10	7 A MIO MI MO 7 A 7 A 7 A 7 A 7 A 1 BO	oc J	KUHALA SUGAR CO  U S WEATHER BUREAU STATE DIV OF FORESTRY VARIOUS RANCH HANDS HM'S MALAE W HUZ PEPEEREO SUGAR CUMPANY KOHALA DITCH CO LTO PEPEEREO SUGAR CO. STATE OIV OF FORESTRY STATE DIV OF FORESTRY
MOUNT KAALA 844 NUUANU RESERVOIR 5 775A NUUANU RESERVOIR 5 775A OPAEULA 970 PALOLO VALLEY 718 PAUDA FLATS 784 PEARL CITY TERCE 754-1 PORTLOCK ROAD 724-4 PRI WANIAWA 820-2 PUNALUU 884	6928 6933 7150 7664 7810 7933 8126 8172 8310	05 WATALUA 02 HONOLULU 02 HONOLULU 03 EWA 02 HONOLULU 05 01 KOOLAULO/		2 21 21 2 21 21 5 21 34 2 21 20 2 21 21 3 21 25 2 21 17 5 21 28 1 21 35	158 09 157 49 157 50 158 02 157 46 157 48 157 58 157 43 158 01 157 54	410 1060 995 1640 240 6 700 20	7A 8A	HID VAP 7A MIO MID 5P 8A 8A	C C	FEDERAL AVIATION AOM- BOARD OF WIP SUPPLY BOARD OF WIP SUPPLY BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAMES MUMENO GEORGE L. BRENNER PINEAPPLE RESEARCH INST KAHURU PLIN CO	HUEHUE 92A	A 2156 0 A 2249 0 A 2327 0 2512 0 2751 0 2894 0 A 3048 0 3077 0	4 N KONA 3 KAU 4 N KONA 3 KAU 4 N KONA 2 S HILO 3 KAU 1 S KOMALA	4 19 45 4 19 30 4 19 30 3 19 08 4 19 32 2 19 20 3 19 02 1 20 01	155 59 155 34 155 55 155 46 155 56 155 02 155 40 155 40	1960 1340 1340 3700 1500 10 1375 2670 2665 2140	0 7A	7A 8A 7A VAR WI 6A	(r)	HUEMUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO RUSSELL P. SMITH AUNA EXPERIMENT STA HAWAII VOLCANDES NAT P HAWAIIAN RANCH CO PARKER RANCH HAWAIIAN AIBRINES
WAIAHOLE 837 A WAIALAE KAHALA 715 WAIALUA 847 A WAIANAE 798	860: 8730 8738 8815 8945 8945 9185 9195 9231	02 HONOLULU 02 HONOLULU 05 WAHIAWA 01 KOOLAUPON 02 HONOLULU 05 WAIALUA 04 WAIANAE		1 21 22 2 21 20 2 21 20 2 21 18 5 21 30 1 21 28 2 21 17 5 21 35 4 21 27	157 51 157 47 157 49 157 50 157 49 158 03 157 53 157 47 158 07	79 854 745 40 32 20	7A	8A 7A 7 8 7A 7A 7	0 000	NAT MEM CEMETERY REY R CULLINAN BOARD OF WATER SUPPLY R. E. WHITE OEPT- OF GEOSCIENCE WALALUA AGR CO LTO MALANUE WIR CO LTO SPENCER TINKER WALAULA AGR CO LTD CAPITAL INVEST CO	KAPOHO LANOING 935  KAWANA 88-1  KAWANINUI LOWER 193  KEAAU 92  KEALWA CAMP 22-1  REALAREKUA 26-2  KEMAKOUL CAMP 124-2  KEMAKOUL CAMP 124-2  KEMAKOUL CAMP 124-2  KEMAKOUL CAMP 124-2	A 3369 0 3510 0 A 3770 0 3872 0 3925 0 3977 0 4098 0 A 4245 0	2 PUNA 2 S HILO 1 HAMAKUA 2 PUNA 3 KAU 4 S KUNA 2 HAMAKUA I N KOHALA 1 N KOHALA	2 19 30 2 19 41 1 20 05 2 19 38 3 19 14 4 19 30 2 19 55 1 20 07	154 52 155 09 155 39 155 02 155 29 155 55 155 24 155 45	290 1123 1080 1700 1450 5280 2520	3 0 0 0 0 8 0 8 0 0 0 0 0 0 0 0 0 0 0 0	VAR VAR W.L	מממ מ	HAWAIJAN RANCH CO. INC BOARD OF WATER SUPPLY SHIGED MASUVA MONDN AS SUGAR CO PUNA SUGAR CO HAWAIJAN AGPI, COMPANY MISS ANY OPENNELL STATE DIV. OF FORESTRY KOHALD DITCH CO LTO KOHALD DITCH CO LTO CLATE DIV. OF FORESTRY
WALANAE MAULA 803 A A WALAWA 803 A A WALKANE 885 A WALKIK 171-2 WALLUPE RESERVOIR 170 A WALLUPE VLY SCH 723-6 MALMANALO 799 AWALWE VLY SCH 723-6 A WALMANALO 799 AWALMANALO 799 AWALMANANA 799 AWALMANALO 799 AWALMANANA	9261 9340 9397 9495 9500 9521 4 9593 4 9738	01 KOOLAUPON C5 WATALUA	0	3 21 28 1 21 30 2 21 16 2 21 18 2 21 18 1 21 21 5 21 38	158 09 157 56 157 53 157 49 157 45 157 45 157 44 158 04 158 01 157 47	800 760 10 170 160	8.8	W1 W1 8A H1 8A 7A 8A M10	c	CAPITAL INVEST CO MAJAMOLE WIR CO LTO WAS AHOUSE WIR CO LTO HONOLULU ZOO BOARO OF WIR SUPPLY WAILUPE VALLEY SCHOOL ST 01V WIR + LAND GEV WAIALUA AGR CO LTO OAMU SUGAR CO BOARD OF WIR SUPPLY	KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175-1 KOIAKE LUWER 196 KOHA AIRPOPT 68-3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 200 KUI ANI CAMP 79	A 4670 0 A 4675 0 4680 0 A 4685 0 4764 0 4815 0 4928 0 4938 0	3 KAU 2 S HILO 1 N KOHALA 1 N KOHALA 1 N KOHALA 1 HAMAKUA 4 N KOMA 1 HAMAKUA 1 HAMAKUA 1 HAMAKUA 2 S HILO 5 N HILO	3 19 04 2 19 44 1 20 14 1 20 13 1 20 14 1 20 05 4 19 39 1 20 02 1 20 07 1 20 08 2 19 33 5 19 35	155 47 155 47 155 48 155 38	1490 309 960 531 720 15 840 980 300 5170	9 BA	W1 8A 7A 8A W1 8A 6A 6A		STATE OLV OF FORESTRY MAUNA ZEA SUGAR CO.  KOMALA SUGAR CO.  K. LYMAN BOND. HONOLAA SUGAR CO.  HAWAI IAN A IRLLINES. HONOLAA SUGAR CO. HONOLAA SUGAR CO. HONOLAA SUGAR CO. ST GEPT OF SOCIAL SER U.S. WEATHER BUREAU
KALAUPAPA 563 KAMALO MAUKA 542.6 KAUNAKAKAI 536 KAUNAKAKAI MAUKA 536.5	3046 3541 3547 4394 4778 6138 6190	01 MOLOKAI 01 MOLOKAI 01 MOLOKAI		1 21 04 1 21 06 1 21 06 1 21 12	157 01	30 60 12 70 560 878 20 1075 450 700	8A	8 A 8 A 8 A 8 A 8 A 8 A	2 2 2 2	KALAUPAPA SETTLEMENT W. J. CARSTEN MOLONAI RANCH LTO MOLOKAI GENERAL MOSPITA MOLOKAI RANCH LTO. DEL MONTE CORPORATION H S P A LIBBY MCNELL * LTBBY ALOMA AIRLINES PUUDHOKU MANCH MOLONAI RANCH MOLONAI RANCH	KULANI MAUKA 76  KULANI SCHOOL SITE 78 LALAMILO FLD OFF 191.1 LANIHAU 68 C LAVA TREE PARK 66.1 MANUKA 2 MAUVA KEA BEACH MAUWA KEA BEACH MAUWA LOA SLOPE OBS MIOOLE HOLUALOA 68.1 MIOOLE PEN 147-1	A 5021 0 5260 0 5330 0 5460 0	7 S HILO 1 S KOMALA 4 N KONA 2 PUNA 3 KAU 4 S KOMALA 5 HAMAKUA 4 N KONA 1 N KOMALA	5 19 35 2 19 35 1 20 01 4 19 40 2 19 29 3 19 07 1 20 01 5 19 32 4 19 37 1 20 06 3 19 11	155 20 155 41 155 58 154 54	5735 2615 1530 650	8A M10	PA BA	c	U S MEATHER BUREAU STOEPT OF SOCIAL SER STATE DEPT OF L + N RE KONA EMPERIMENT STATIC STATE DIVISION OF PARK U S WEATHER BUREAU U S WEATHER BUREAU KONA EMPERIMENT STA KAHJA RANCH HAWALIAN RANCH CO

STATION	INDEX NO. DIVISION	DISTRICT	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION	T	ERVA IME A IME A	S	OBSERVER	STATION		INDEX NO.	DIVISION	DISTRICT	DRAINAGE ‡	LATITUDE	LONGITUDE	ELEVATION		SER TME TAI	D	OBSERVER
NAPODPOO 28 NAUL FOREIST 38-6 HIULII 179 OOKALA 223 SPINIMALE 2 24-1 OOKALA 221 SPINIMALE 2 24-1 PAANALO 271 PAANALO 271 PAANALA 21 PAANALA 21 PAANALA 21 PAANALA 21 PAANALA 21 PAANALA 21 PARALA 21 PANALA 21	7131 02 7166 04 7166 02 7206 01 7312 01 7421 03 7457 02 4 7643 03 7711 02 7721 02 7721 02 8063 02 8 8063 02 8 8063 02	KAU S KONA PUNA N KOHALA N KOHALA N HILO S KONA PUNA HAMAKUA KAU PUNA KAU S HILO S HILO S HILO S HILO S HILO S HILO	212 211 3232222	19 04 19 28 19 28 20 14 20 01 19 16 12 005 20 03 19 12 19 30 19 22 19 47 119 44 119 51 119 44 119 59	155 07 155 35 155 55 155 55 155 08 155 45 155 15 155 20 155 20 155 22 155 22 155 28 155 08 155 08 155 08 155 08 155 08 155 08 155 08	673 395 1400 75 430 1270 445 800 870 670 5000 200 1270 100 1730 6511	7 - 7 - 0 -	6 A A A A A A A A A A A A A A A A A A A	c	DUNA SUGAR CO HUTCHINAN SUGAR CO HUTCHINAN SUGAR CO HUTCHINAN SUGAR CO MANAIL VOLCANOES NAT PK ECHALA SUGAR HISS CLECHARO HISS CLECHARO BOARO OF HATER SUPPLY PASUHAL SUGAR CO HAWAILAN ASCH WAMAILAN RACH CO. HAWAILAN ASCH WAMAILAN RACH CO. HAWAILAN SUGAR CO. HA	PUU LEAU 102-1 AP PUU LEAU 73 PUU HALI 113 PUU LEAU 73 PUU MALI 113 PUU MALI 113 PUU MALI 114 PUU MAPAA 94-1 SAODLE ROAO 1 8-8A. 3 POUHT 17-8AC-18G 514 PUU LOO 82 PUU MARAMA 13 PUH 17-8AC-18G 514 PUH 17-8AC-18G 519-2 PU	A B B B B B B B B B B B B B B B B B B B	452 460 515 555 555 675 675 677 780 830 025 350	05 04 01 02 05 02 05 02 03 03 01 01 02 01		5 2 3 3 3 1 1 2 2 1	19 50 19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40 20 08	155 24 155 36 155 49 155 26 155 50 155 23 155 51 155 12 155 41 155 41 155 39 155 39	7750 7440 4850 6960 1800 6340 2520 2340 305 3420 3830 2870	8.8	MO M	c	KURAIAU RANCH CO STATE OLV OF FISH-GAME ORECNNELL RANCH KOHALA DITCH CO LTO W.M. SHIPPANN. LTO OLLLINGWAR RANCH INC HUTCHINSON SUGAR CO FEORRAL ELECTRIC CORP EUKAIAU RANCH CO U.S. COAST GUARO SHIPLCH KARESHIRO KANUA PANCH  CLOSEO 6/21/67  HAWAIL VOLCANOES NAT PK

TARINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-NO INTRA-ISLAND DIVISIONS) LANAI: 1-NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. O. 80x 3650, Honolulu, Hawaii, or to any Weather Dureau Office near you — Additional precipitation data are contained in "HOURLY PRECIPITATION DATA HAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are: Temperature in "F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees. Resultant wind is the vector sum of wind directions and speeded divided by the number of observations

OBSERVATION TIME Data to the "Monthly Extrease", "Daily Precipitation" table, "Daily Temperature" table, and "Exaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Index. The Station Index shows observation time in local

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table refer to extremes of temporature of water in pan as recorded during 24-hours ending at time of observation

NORWALS for all stations are climatological standard normals based on the period 1931-1960

STATION NAMES. Hawaii state key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" twble, and the Station Index.
- No record ie the "Climatological Data" table aed the "Daily Temperature" table is indicated by no entry
- + And also on wn earlier date or dates
- ++ Righest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown.
- A The letter "a" microm following station came in "Climatological Data" table, "Daily Precipitation" table, and "Station Index", indicates amount carried in the "Intil" column in for the prior of feed in the "Intil" column in for the prior of feed in an assurement of a preceding month brought tast measurement of the current month. See "Daily precipitation" table of table and previous builetins for date of measurement. Where gages are read only once monthly, measurements ande on the first of a month are credited to the last day of the preceding month.
- B Adjusted to a full month
- J "Supplementai Data" table
- Note or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage.
- T Trace, an amount too small to measure
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after rain.
- c in Special Column of Station Index indicates Recording Rain Gago Station Hourly precipitation values are processed for special purposes, and are published lator in the 'Bourly Precipitation Data' builted in (f daily amounts are published in 'Cilinationgical Data' builted they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" builtetis.
- MO Gwge read once monthly, usually on the lwst day
- OC Gage readings at periods varying from a fow weeks to several months
- 3 Storage Precipitation Station. Precipitation measuremente, made at irregular intervals, are published in the December issue, or as delayed data in the June Issue of Objs publication.
- SS Observation time is near sunset
- VAR Observation time is variable
- WI Gage read weekly or irregularly only.
- WW Gago read weekly and last day of month.
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

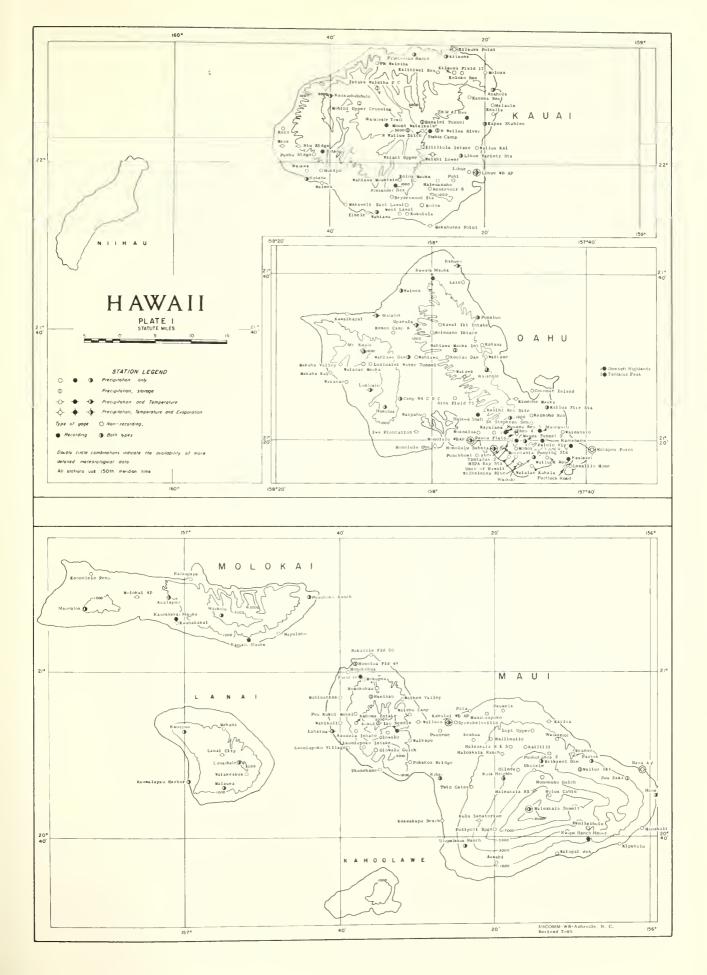
Stations appearing in the Index, but for which data are not fisted in the tables, were either missing or received too late to be included in this issue

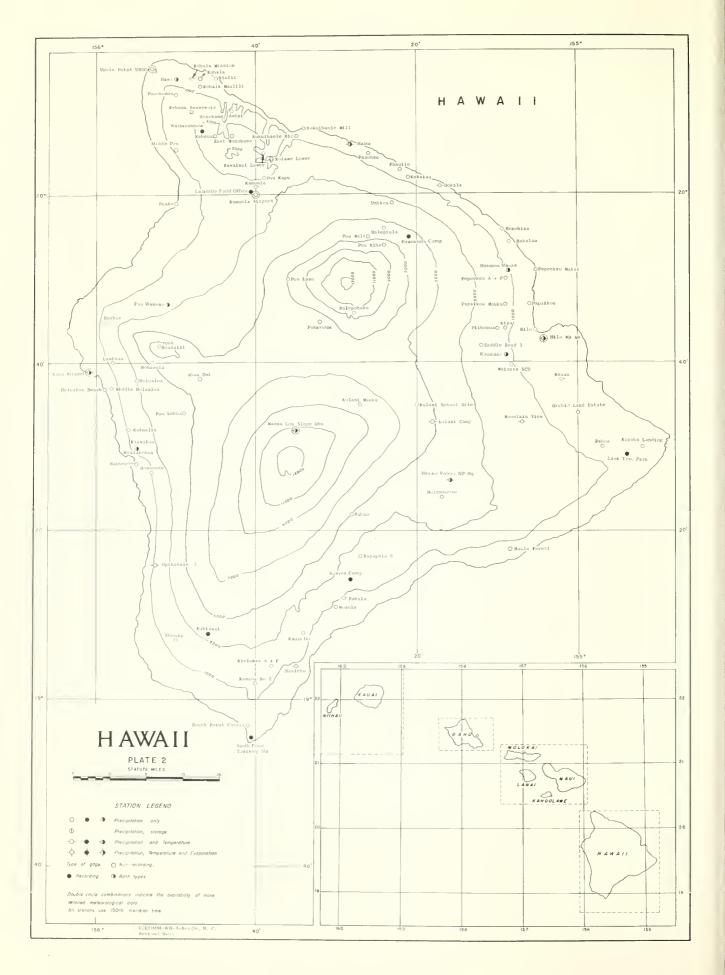
General weather conditions in the U. S. for each eouth are described in the publications wonthly WEATHER REVIEW, WONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendeet of Documents, Government Printing Office, Mashington, D. C. 20402.

Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Elistory" for this State, price 40 cents. Similar information for regular Woather Euroma stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Documents at the address shown above.

Subscription Price 20 centerper copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and some orders whould be eade payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be east to the Superintendent of Document of Documents. Government Printing Office, Washington, D. C. 20402.

USCOMM-ESSA-ASHEVILLE-10/30/67-890











DATAVERSITY

U. S. DEPARTMENT OF COMMERCE ALEXANDER B TROWBRIDGE, Secreta

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

ENVIRONMENTAL DATA SERVICE

HAWAII

AUGUST 1967

Volume 63 No. 8

DEC 15 1967

CLIMATOLOGICAL DATA

5 Precipitation Temperature Snow Sleet No. of Days Min Average Max E 10 or .50 or Total Date 1.00 Date Date ISLANO OF KAUAL ANAHOLA 1111 .0 .0 ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA 5TABLE5 1104 KILAUEA FIELD 17 1135 KILAUEA POINT 1133 80 20 47 29 0 0 58.3 66.7 0 3 75.1 .89 3.08 -40 - 1.00 85.9 74.0 80.0 89 31 70 10 0 0 2.55 .70 .87 3.33 1.78 KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115 .61 10 0 0 .93 15.91 11.55 .0 12 0 .06 17 .90 13 PUEHU RIOGE 1040 WAH1AWA 930 WA1AHI LOWER 1054 WA1MEA 947 1.91 2.95 10.32 2.65 .96 3 0 1 2 1 2.43 1.98 2.27 0 81.7 67.1 74.4 63 304 1.61 ISLANO 75.8 5.09 .0 ISLAND OF DAHU .60 10 1.18 9 1.24 9 3.20 10 3.94 9 HONOLULU OB5ERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU OAM 833 1.51 0 2 2 3 3 0 0 0 0 0 0 0 0 0 88.8 84.0M 83.6 75.3 72.0M 71.8 82.1 78.0M 77.7 71 294 12 2.7 91 4.40 10.79 14.47 ň 0 13 6 LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718 .17 .09 9 .88 10 .0 0 6 16 14 20 0 0 5 2 7 0 81.2 73.9 77.6 83 294 71 10 0 0 14.16 6.40 23.38 3.52 1.95 3.84 0 0 85 81.1 67.9 5.03 9.00 5.25 2.20 2 2 2 PR1 WAH1AWA 820.2 77.3 304 64 29 0 10 9 10 9 2.60 PUNALUU 884 WAHIAWA OAM 863 WAIAHOLE 837 WAIALUA 847 22.83 11.00 4.26 .0 6 2 1 86.0 68.6 77.3 89 294 63 29 0 0 0 92 14 0 0 1.48 9 3 3 73.2 81.1 WA1K1K1 717.2 WA1PAHU 750 88.9 .0 7.78 ISLANO ISLANO OF MOLOKAI 2.52 8.09 1.79 1.30 5.19 .59 1.25 1.36 .49 KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524 8 10 5 15 3 0 0 72.1 9 69 30+ 0 0 0 .0 83.9 15LANO 78.0 ISLANO OF LANAI 62 244 0 0 0 2.72 .94 .63 18 LANAI CITY 672 72.5 84 9 . 0 151 ANO 72.5 15LANO OF MAU1 5.51 8.32 9.40 3.29 1.33 7 6 15 HALEAKALA B E 5 434 HALEAKALA R5 338 HANA AIRPORT HONOKOHUA 493 .83 2 2 2 0 0 42 124 67 29 0 4.30 48.6 72.1 0 0 66.2 84.9 1 .76 3 24+ 63 29 0 0 0 0 88 KAHULUI WB AP 70.4 77.8 - 1.2 85.1 .0 0 0 0 0 20.07 9.12 9 19 KAILUA 446 KEANAE 346 83 9 64 13 80.1 30.48 8.73 8.03 4.93 .36 16 2 0 KIPAHULU 258 KULA 5ANATORIUM 267 LAHAINA 361 3 66.0 20 68 11 92 2 .74 1.22 2.66 PAIA 406 WAILUKU 392 .0 0 0 8.58 .0 15LANO

#### CLIMATOLOGICAL DATA

CONTINUEO					/111111					<i>J</i> 111		<i></i>		11						HAWA AUGU		1	1967	,
					Теп	perot	ure											Precip	oitation					
												lo. of	Day	s					Sno	w, Sleet		N	o. of	Days
Stotion		Averoge Moximum	Average Minimum	Average	Deporture From Normol	Highest	Dote	Lowest	Dote			32° or x	32° or Below		Totof	Deporture From Normal	Greotest Doy	Dote	Totol	Mox. Depth on Ground	Date	.10 or More	.50 ar More	1.00 or More
# # # ISLANO OF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HO 54 HILO W8 AIRPORT HUEHUE 92A KAINALIU 738	R A	84.7 72.4 84.2 80.7	67.6 55.8 70.0	76.2 64.1 77.1	1.7 .5 1.3	88 75 86	30+	51 67			0 0 0	0 0 0	0 0 0	0 0 0	6.55 12.59 19.55 6.40 10.89	1.91 5.00 8.10 3.68 3.20	4.55 4.42 8.93 3.20 2.02	8 8 31	.0 .0 .0	0 0 0 0		2 8 15	2 3 6	2 3 4
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1 KONA AIRPORT 68.3	A	75.4 83.9 80.8	60.7 66.7 65.6 72.0	68.1 75.3 73.2 78.8	•2	78 86 85	21+ 28+ 9	63	6 29+ 22		0 0 0	0 0 0	0 0	0 0 0	.49 18.62 9.15 4.02 1.22	6.87	.20 5.54 1.60 1.74	8 30 8	.0 .0 .0	0 0 0		2 12 15	0 4 8 2 0	0 3 4 1 0
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107	A	67.9M 89.4 81.6	48.3M 73.2 64.4	58.1M 81.3 73.0	- 1.0	78 93 87		61	29+ 19 18+		0 13 0	0 0 0	0	0 0 0	4.42 12.37 .20 9.47 .82	6.41	2.24 6.35 .07 3.44	3 8 9	.0 .0 .0	00000		3 6 0 8	2 3 0 4	2 3 0 3 0
PUAKO 95A PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCO 88.2															.13 2.71 10.16 24.44	•58 5•10	.05 1.22 4.65 8.95	31 8+	.0 .0 .0	0 0 0		0 6 4 13	0 1 2 8	0 1 2 4
ISLAND				72.5											8.12				.0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 94° ON THE 27TH AT MANA 1026, KAUAI LOWEST TEMPERATURE: 33° ON THE 19TH AT MAUNA LOA SLOPE OBS, MAUI GREATEST TOTAL PRECIPITATION: 41.00 INCHES AT KAHANA 883, OAHU LEAST TOTAL PRECIPITATION: .00 INCH AT KAUNAKAKAI 536, MOLOKAI GREATEST ONE-DAY PRECIPITATION: 10.64 INCHES ON THE 8TH AT NAULA FOREST 386, HAWAII

See Reference Notes Following Station Index

- 88 -

#### HAWAII - AUGUST 1967

#### SPECIAL WEATHER SUMMARY

The weather event of greatest interest during the month was the 3-day period of heavy rain which affected the Islands from August 7 to August 10.

The rains were due mainly to a weakening tropical disturbance that appears to have formed southeast of Hawaii and then moved northwestward through the island chain.

Intermittent flooding occurred in the Hilo area when over a foot of rain fell there between the evening of the 7th and the morning of the 9th. Minor landslides were reported on the Belt Highway north of Hilo, and a flash flood near Hookena, in South Kona, stranded a movie company for several hours on the 9th.

The heavy rains reached Oahu on the morning of the 8th, resulting in several minor rockslides, one of which closed a lane of the Pali Highway, and some overflowing of streams in the Kipapa and Waiawa areas. An Aina Haina (Honolulu) home was nearly totally destroyed by a mud- and rock-slide about 10:30 a.m. on the 9th. Threeday (8th to 10th) rainfall amounts on Oahu were generally 3 to 4 inches along the leeward coastal plain and 6 to 8 inches in the adjoining mountains. At Helemanu Intake, in the Koolau Mountains, 3.65 inches of rain fell during one hour on the morning of the 9th.

The weakening disturbance moved over Kauai

late on the 9th, depositing 2 to 3 inches of rain. At Princeville Ranch, on Kauai's north coast, more than 1.5 inches fell so rapidly during the morning of the 10th that the recording rain gage trace did not permit an accurate time estimate. Some flooding occurred on the Hanapepe, Hanalei, and Wailua Rivers.

Other noteworthy weather events during the month included the 2-inch rain which disrupted telephone service in the Kau area of Hawaii on the evening of the 2d; the snows that capped Mauna Kea during the evenings of August 2 and August 7, occurrences infrequent in the summertime; and the surf along the Kona coast of Hawaii on the 16th, described as the biggest there in many years, but for which no damage was reported. High surf at Kaanapali, Maui, on the 30th, was reported to have washed across the highway.

On all major islands of the State, some areas received well above, and others well below, the monthly mean rainfall. For example, on Oahu, the 0.17 inches at Lualualei was 22 percent of normal, while the 8.76 inches at Wilhelmina Rise was 389 percent of normal, and 3.06 inches greater than its previous 39-year record maximum for August.

Stations with 25 or more years of record, and that exceeded their previous 24-hour or monthly record totals for August, are listed below.

# Stations Whose Greatest Previous August Rainfall Totals were Exceeded in August 1967

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest August Total	August 1967
OAHU			
Helemanu Intake	49	11.40	11.60
Kalihi Reservoir Site	40	15.68	16.72
Kaneohe Mauka	39	7.96	10.79
Kapalama	45	8.58	8.87
Waiahole	51	21.24	22.83
Waialae-Kahala	46	3.50	6.54
Waikane	51	20.33	23.68
Wilhelmina Rise	40	5.70	8.76
MOLOKAI			
Mapulehu	75	7.66	8.09

## HAWAII - AUGUST 1967

## SPECIAL WEATHER SUMMARY - Continued

## Stations Whose Previous Greatest 24-Hour Rainfall

## Totals were Exceeded in August 1967

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous August 24-Hour Extreme	August 1967
OAHU			
Kapalama	45	3.46	3.90
Koolau Dam	53	3.46	3.94
Wilhelmina Rise	40	2.62	5.62
MAUI			
Hamakuapoko	25	3.01	3.05
Kailua	61	4.60	9.12
Paia	29	1.19	1,22
HAWAII			
Papaikou	61	7.80	8.13
Pepeekeo Makai	61	6.35	6.55
	Ac P.	ssell Dorr ting State Climatologist O. Box 3650	

Honolulu, Hawaii 96811

																														HAWA11 AUGU51		1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of Me	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SLAND OF KAUAI																															1	
A A A A A A A A A A A A A A A A A A A	2.31 4.84 5.24 2.67 2.29	.10 .05	•34 •17 •04 •04	т	.01 .02 .06	* * * *	*	.55 .21 .26 .03	•15 •23 •32 •14 •19	.01 .11	2.30 2.07 2.27 .39	.16 .11 .13 T		:	•28 •19 •28 T	.06	.03 .03 .05	.03 .26 .31 .03	.15 .25 .19 .05		:	.05 .03 .11 T	.30 .08 .17	.06 .15 .24 .02	.02	•22 •01	:		.03 .22 .03	т		.04
ALENANAHO 1006 A JKIPO 945 LIILIULA INTAKE 1050 ATAKE WAINIHA PC 1086 A ALIHIWAI RE5 1131 A	7.31 2.28 14.12 7.31 10.62	.28	.23 .12 .94	.13	.43 .30 .45	.60	. 32	.76 .10 .97	.56 .52	.36 .40 2.00 .22	.53	.33 1.17 3.13	.26	.50	.61 .17 1.25 .79	.90	.18	.76 .21	.90 1.47 .88	•12	.05	.08 .02 .44 .22	.50	•27 •92 •71	.03 .03 .11	.80 .47 .27	* 20 *	.10	.06 .26	.20	* 03	• O;
NALOHULUHULU 1075 NNEHA RESERVOIR 1092 A NPAA STABLES 1104 A EALIA 1112 A KAHA 944	7.11 3.08 1.86 1.95	.13	.01 .15 .08	.03	.04	.01	.08	1.23 .34 .27	•56 •06 •06	.27 .39 .06 .19	.40 .16 1.81	•20 •02	:	.16	.01 .64 .40 .28	.01	.03 .12 .02 .12	.02 .11 .23 .07	.01 .63 .20	.01	. 02 R	.07 .15 .08	.01 .45 .25	.32 .08 .13	.40 .06 .02	.01	*	:	.16	.01	.01	•0
LAUEA 1134   A   LAUEA FIELO 17 1135   A   LAUEA FOINT 1133   DLO 1033   DLOA 936   A	5.05 6.69 2.91 .55 7.13	.21 .08 .07	.06 .04 .03	.02	.03 .13	.17	:	.53 .59 .42	.49 .47 .10	.22 .19 .12 .55	.76	1.77 1.44 .08	.22	.19	•27 •31 •03	.21 .31 .06	.07	.05 .14 .05	.08	.02	.04	.16 .16 .27	.32 .43 .02	.14	.06 .51 .10	.03 .09 .07	.01		.06	•12	.01	.06
DLOA MAUKA 994 A DLOKO RES 1137 A JKUJULA 935 A HUE VARIETY STA HUE 1020 A	8.97 5.89 3.44 4.91 3.20	.20 .11 .07 .12	.51 .09 .12 .12	.11 .06 T	.35 .07 .02 .12	.32	:	.69 .67 .21 .12 .36	.86 .38 .23	1.74 .21 .22 .34	.85 1.73 .63	.23 .82 .01 .32	.17		.57 .45 .18 .43	.09 .32 .02 .01	.16 .02 .05 .15	.48 .14 .13 .19	.40 .35 .02 .63	.02	:	.15 .16 .06 .22	.47 .30 .12 .44	.40 .30 .02 .05	.15 .34 .19 .10	.16 .03 T .06	:		.06 .07 .04	.15 .01		• 1.
HUE WB AIRPORT R AKAHUEMA POINT AKAWELI 965 A ANA 1026 DHIHI UPR CROSS 1083	1.98 1.95 2.36 .93 1.84		•03	.01	.04	.13	•17 •01	.07	.07 .18 .08 .02 .07	.70 .30 2.19 .87	.02	T	.03 .02	.06	.05	.02	.01	.05 .13 .02	.01 .06	T	.07	.02 .03	.01	.05	.14	.01	.08	.01		.03		
DLOAA 1145 A IU RIOGE 1035 WAILUA OITCH 1051 H WAINIHA 1115 RINCEVILLE RANCH 1117	2.51 1.66 15.91 11.55 8.64	.04	.02 .05 .77 .17	.03 .02 .13	.48 .50	.21 .03	e 1.52 .45	.31 1.11 .03 .05	.16 .31 .51	.12 1.55 .69 .75	.06 3.33 .42	1.54	.14	1.78 .23	.15 1.93 1.43 .15	.05 .93 .06	.02 .14 .08 .07	.60 .30 .08	.90 .85	* •03 •05	* *09 *17	.04 .32 .20	.16 .62 .37 .42	•12 •73 •67 •24	.07 .39 .06	•23 •13 •03	•	.04 .03	.01 .43 T	•13	Т	.0
JEHU RIOGE 1040 JHI 1013 A SSERVOIR 6 1004 A HHIAWA 930 A HHIAWA MOUNTAIN 990 A	1.91 4.77 6.65 2.95 14.50	.05	.16 .09 .17 .04	.04	•02 •07		:	.60 .53 .04	.34 .64 .12	.74	.79 1.32 1.76 2.43	.04 .02 T		*	•43 •52 •06	.02 .06	.09	.10 .34 .07	.33	*	:	.05 .27 .04	.80 .37	.02 .11 .02	.11 .13 .01	.16 .14 T			. 05 T	•02	- 1	14•5
AIAHI LOWER 1054 AIAHI UPPER 1052 AIAWA 943 AILUA KAI 1065 A AIMEA 947	10.32 12.53 .88 2.28 2.65	.15	.73 .70	.02	.30	.31 .48	.28 .25	.05	.55 .78 .02 .07	.06	2.95	.03	.10 .50	.47 .39	.31 .27	.50	.16 .21	.40 .35	1.07 .40	.10 .07	.03	.03	.42 .43	.73 .65	.02	.51 .59	.11	.05	.02			.0
EST LAWAI 931 A	3,57	.10	.11		.03	•		.18	.18	.21	1.81	T	•		.13	.03	.02	.21	.14	•	•	.04	.08	.05	•20		•	•	.05			
IEA FIELO 625 761 ERETANIA PUMPING 5TA AMP 84 807 A CONUT ISLANO 840.1	6.04 3.68 2.45 5.56 7.20	† <sup>14</sup>	115 T	.05 .07 .08 .04	.08 .05 .04 .55	.01 .53	.03	.01	. 86	.86 .91 1.30	3.03 1.25 .37 .44 1.19	T T .01	.01	.13	.12 .12 .08 †		.08	.13 T .26 .05	.16 .02 .15 .24	.02	.02	.23 .04 .06 .12	.08 .09	.14 •13 .04	.01 T	•02	.06		.04	.01	.05	
WA PLANTATION 741 ELEMANO INTAKE 881 A OKULOA 725.2 A ONOLULU OB5ERV 702.2 ONOLULU WBAP 703 R	1.34 11.60 2.51 1.51 2.53	•20	T *	.02	.09 * * *	.01 #	* *	.43	.39 .48 .37	.31	8.20	* *	* •	* *	T •32 1•08 •02 •02	* *	.01	.01 .47 # T	.02 .01	* •	.01 *	1.10 .68 .04	a *	T **	•26 #	.01	* * T	:	• 42 a	.07		
ONOLULU SUBSTA 704 5 P A EXP 5TA 707 AHANA 883 A AHUKU 912 AILUA FIRE STA 791,3	3.10 4.59 41.00 4.4	.05	.04 .02	.06 .03	•13 • •45 •12	.21		13.20	1.04		1.08		.04	:	•26 16.00 •02 •03	# T	.05	T * •22 •01	.19	.01	.06 T «	.06 8.92 .15	.05 .16 .16	.06 .27	.10	T #	.01	:	2.76	.04		• 1
ALIH1 RES SITE 777 ANEOHE MAUKA 781 ANEOHE RANCH 838 APALAMA 773 AWAIHAPAI 841 AWAIHAPAI 841	16.72 10.79 7.47 8.87	.02 T	.05	2.22	1.00 .41 .30	.36 .61	.08	.60	2.64 .28 1.16	3.56 2.17 1.00 3.90	3.20 1.77	.01 .01	.18	.88	.28 .19 .18 .54	.04 .04 .32	.72 .09 T	2.22 .59 .34 .40	1.04	.02 .06	1.24 .30	.12 .31 .07	.18 .55 .05	.01 *	.06 .05	•12 •03 T •20	.02		Ť		.02	.0
AWA1 IK1 INTAKE 880.2 A EMOO CAMP 8 855 A OOLAU OAM 833 UALUALEI 804 UALUALEI WTR TUNNEL A	11.00 3.32 14.47	.49	•	1.03	.11	• 02	.14		• 33		• 55	.06 .34	.39	.06	•02	.16	.52	.05 .65	.22	•46	.31	.25 .06	.01	.02 .87	.16	.04		.02			*	11.0
UNALILO HOME 724.2 AKAHA KA1 796 AKAHA VALLEY 800.1 AKAPUU POINT 724 ANOA 712	3.19 .41 .51 2.83 9.48			.04	.06	.10	.11		.18 .56	.12	2.15		.31	.05	•16	.02	.06	.02	.12 .12 .12		.05	.17 .06 .11	.02 T	.02	• 02	.13	.23				Ţ	
ANOA TUNNEL 2 716 CANALUA 770 UUUANU RE5 4 783 UUUANU RESERVOIR 5 775 A	25.86 4.26 14.16 11.24 6.40	.16	•12 •04	4.30 •11 1.68 •58	.68 .06	.20	.02	.76	3.60 1.94	4.18 9 3.52	.04	.06	.74	1.30	.50	.06 3.42	1.08	3.46 1.94	.12	.02	1.42	.44	.62	.04 •19 •04 •05		.56 .08 .20 .38	*04	.02	.06		.06	
PAEULA 870 ALOLO VALLEY 718 AUOLA FLATS 784 ORTLOCK ROAD 724.4 PRI WAHIAWA 820.2	23.38 26.12 4.38 5.0	.12 .26	.14	3.82 3.68 .06	.86 .78 .04	.48 .64	.04	1.20 T	3.12 3.52 .61	3.84 3.80 2.97	.10	.60	.84		.46	.04	1.12	3.38	.26 .44	.06	1.18	.10	.30	.04 .12 .08	.18	.44 .58 .18	.02	.02	.08	.02	.04	
PUNALUU 884 PUNCHBOWL CRATER 709 A RT STEPHENS SEM 788 ANTALUS 2 780.5 RIV OF HAWAII 713 A	9.00 3.8: 9.8: 13.3: 5.80	02 7 T 9 .01	†10 †1.	.48	.07 .45 1.38	.44	.09	2	.72 1.19 1.39	1.03	3 1.11 3 1.62 7 3.45 9 1.02	.05 .02 .02	.02	. 24	.20 .32 .60	.03 .12	.12	.03	.03 1.05	.07 1.58	.87	.08	.32	•10 •03 •22 •17	.01 .06 T	•03 •40 •05	•09 •	T	•01			
AHIAWA CAM 863  VAIAHCLE 837 A VAIALAE KAHALA 715 VAIALUA 847 A VAIANAE 798	22.8: 6.5: 2.9:	3 .07 4 T	.03	.02	.70 2.18 .01 .02	*04	٠	1.30	.84 .38	4.26		.11 01		Ť	.91 .04	,04 †	.07	1.40	2.57	.01	, o1	1.0A	.64	.15 T .16	+ <sup>22</sup>		.07	* T	•52	•21	.08	
AIANAE MAUKA 803 A (AIAWA 836 A (AIAWA 836 A (AIAWA 717,2 (AILUPE RESERVOIR 170 A	8.3	3 * 6 * 0 *	:	* T	2.63	.01	:	5,80	.94	1.48	8 1.44 6.70	9.37	e e e		11.70 T	•	.06	* † •51	4.78	•	# † # •24	4.62 .09		.03	* * •52	2.47	.01		1.54	.03	*	
AIMANALO 794 A VAIMEA 892 A VAIPAHU 750 A VILHELMINA RI5E 721	3.9 2.5 8.7	.01	.07		.05			.20	.01	1.2	7 1.01 8 1.21 2 .02	03		:	.15	.01	.11	.13	•22		***************************************	.32 T	Ť	.07 .01		•09	:	*	•05 T			

See reference notes following Station Inde

Continued											-				Day	of M	onth								-						AUGUS	r	1967
Station		Total	1	2	3	4	5	- 6	7	8	9	10	11	12	_	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15LANO OF MOLUKAI																																	
ALAUPAPA 563 AUNAKAKAI 536 EUNELELE PEN5 551 UALAPUU 534 APULEHU 542	A A	3.14 .00 1.56 2.52 8.09		.5	T 7 •5	1.25			1,25	1.36	.10	.86	.09	.03		.05	.32	.01	.05 .03 1.05	.70 .21 .02	.03	* 34	.07	.05	.20 .22 .49	.26 .01	.17	.13	1.01	•10 •02	.08	.10	
UNALOA 511  LOKAÍ AP 524  UOMAKU RANCH 542.1  IKOLU 540	A	1.79 1.44 6.62 6.57		*4"	5 .20	.14	٠	.05	1.46	.06 .17 .38	.30	.49 .38 .30	٠	.10	, 18	.46 .10 2.23	.24	.19	.91	.14		.06	.98 2.07	.03	.11	* 44	.70	.03	•	.81			
INEPUU 690 IUMALAPAU HARBUK 658 INAI CITY 672 INAIHALE 684 IHANA 694	A A A	1.61 1.26 2.72 4.14 2.14			•0; T •0;	.19				.07	.43 .10	.57	.09 .01		.01	* 16 •28	.02		.67 .04 .95	• 01 • 63		* T * *	.39	.10	* T *	*22 *29		.05		:	•		1.16
LAUEA 676 LIAKEAKUA 685 • • • • • • • • • • • • • • • • • • •	A	1.53	٠	٠	٠	:	*	*	.01	*	*	•53 •38	:	:	:	•13		:	.23	*	*	•	.32	*	•13	•73 *	*	*	:	.03	•	•	.04
WAMI-252 NEAKALA B E S 434 NEAKALA RANCH 432 NEAKALA RS 338 NEAKALA SUMMIT 338.4	A A A	4.10 5.51 2.99 8.32 11.13			.62 .21 .15	.34	٠	•		1.86 .97 2.78 2.06	4.30	.06	•	• 03	• •15	•15 •27 •03 •02		.06	.07	.31 .26 .07	•	e .04	.02	* T	*07 T	.35		•12 •	.01 .20	• T •05	•		*
LIIMAILE 423 MAKUAPOKO 485 NA 354 NA AIRPORT NAHULI 281		2.47 5.43 7.13 9.40 6.99		.0	0 2.04 5 .87	.06 .06	т	.07	.04 .06 .05	.98 .78 .20 2.80 2.20	.82 3.05 1.70 .42 .21	.02 .01 .12	.10	.01 .08 .10 .10	.07 .50 .05	7 •38 •37 •02	.11	.09 .51 .18	.06 .16 .72 .37	.12 .20 .24 .45	.01	.03 .07 .31	.04 .11 .05 .45	.95 .02 .08	.19	.25	.05 .45 .29	.05 .15 .05	.01 .02 .05	.04 T			Ţ
LUA CABIN 259.5 NOKOHAU 480 NOKOHUA 493 NOMANU GULCH 341 HOMA INTAKE 374 HULUI WB AP	4 4 4 4	7.42 14.30 3.29 8.80 5.15		.06		• 52			.07	.76	.65	• 28 •	7.00 * 2.69			.08	.04	.10	.22	* .49 *		.03	.35	.12	•03	.09	* 03 * 52	.11		.16	*		8 • 80
1L11L1 436 1LUA 446 UAULA INTAKE 375 AHUA 410	A	9.37 20.07 1.98 1.64			3 2 25 T	.64		.04		2.79	9.12	.23 .35	.08	.33	.40	.13	.10		1.49 T	1.00	.05	.15	.04 .15	.03	16	.12	.11	.16	.10	.66		•	9.37
AWAKAPU BEACH 260.2 HEI 311 PAHULU 258 LA HEIGHTS 323.2 LA SANATORIUM 267		2.17 .55 8.03 3.05			.01 .82 .01	.14		.07	.04	.37 .01 2.64 .41	.94 .20 .84 .95	.32 .10 .41	.0a	.10	.32	T .31 .17		.40	.22	.62	.06	.80	•02 •14 •42	.02	.12 T	.28	.46						
HAINA 361 UNIUPOKO INTAKE 376 UNIUPOKO VILLAGE 372 P1 UPPER 442 HINAHINA 466 KALELE -FLD 60-497	AAAAAA	.36 2.20 .35 23.40 1.55 5.08			.02				• • • • • • • • • • • • • • • • • • • •	* * *61	.09	.18				* * 2.00	•	.01	.05	.07			.08 .08		:	.06				. 94	•		2 • 2 0
1NOA 332 CWALU 296 CWALU GULCH 377 AKEA 350 1A 406	A	5.96 .19 1.60 24.06 2.66	.04	.06	.62 5 3.27	1.66		.17	•	1.46 *	.05	.13 .14 .58 .26	T *	* • •37 •03	* 1.26	.79	.01	.03 .88 .02		*14 *	.06	.14	.20 .01	T #	T * •57	.82	.03	.28	* * *52	•08	T *		1.60
INTLETHULU 259.2 UWELA 490 HAKEA BRIOGE 307.2 ILIPOLI SPRINGS 267.2 IOHOKAMOA 2 343	A A A	8.00 8.64 .52 10.35 30.00	• 29	.03			:			1.62	4.89 .16	.02	.07		*	•		.33	.70	.42	:		.25		.02 2.54	.03	.50	•	*	*.14		* 21 * *	0.00
U KUKUI MAKA! 472 UNENE 396 RECKELSVILLE 400.2 IN GATE5 261.3 UNENEME 301	A	3.00 1.07 2.02 1.42 10.80			.06		:			.41 .85	.31	.22	:	:		•95		* T	.03	.02	:	T .	• 47 •	:	:	:		.02	.02	:	3.00	: 1	.0.80
UPALAKUA FANCH 250 HIKULI 364 1EHU CAMP 484 1HEE VALLEY 482 IKAMOI 449	A	.21 5.07 .64 3.34 4.87 28.20		.07	,20	.25				•10	.05 2.10 .18	•21			•42	•31 •08			.05 .04	.19		.85	.83 .11	.02	.52	.02	.07		.09				8 • 20
IKAMOI DAM 336 IKAPU 390 ILUKU 392 IOPAI RANCH 256	A	20.23	T -	-		.86	-	-	.04	6.07 .25 -	4.63 .20	.17	.14	-	.02	.08	- 36	- 48	-	.82 .10	:	.01	.7: .03	.10		.07	•	.04	.15	• 33	Ť		T
SLAND OF HAWALL																																	
JA UM1 75 IN1 182.1 ST HONOKANE 1838 INA 214 KALAU 142	A A	8.83 6.55 19.32	.04	.04	4.55 4.52	. 44	.01		٠	2.39 • 1.69 5.53	.06 6.12	.01	.05	.12	.04	.58 .02	.05	.08	.61 .05	.55	•	:	•16	.10	•		.61 .07	:	.04	.02	•	.02 .07	8 • 8 3 • 0 5 • 2 1
LEMAUMAU 52 LEPIULA 117 LEPOMAKU 111 WAII VOLCN5 NP HG 54 WI 168 LO WU AIRPORT	A A A R	9.20 8.16 .14 12.59 3.36	* T		4.12 4.12 4.91	.43	.04 T	· · ·	.08 .01	4.42 .84	2.73 .22	.02	.12	.06	T	. 02 .19 .33	.01	.03	.01 .23	.06	.01		.06	* T	* T	* T	T .03	•	.20	.01 .21		T .02	9.20 8.16
LUALOA 70 LUALOA BEACH 68 NAUNAU 27 NOMINA 137 NOKANE 181.1	A	6.73 3.93 7.41 19.93		1.35	.02 5.50	.02	.07	.07	.06	.37 4.65	.07, 5.25	.32	.30 .20 .36	.10	.20	.01 .20	.71	.25	.57 .37	.13 1.67 .20 .54	.08	.04	. 24	.52	.11 .69 .02	.02 .05	.07 .04 .10	.73 .02 .03	.02 .56	.05	• 6	.08	.07
NOMU MAUKA 138 NUAULA 71 ALALA1 72 EHUE 92A ALA KE 12	A	25.02 2.80 80 6.40	*	•	3.45	.47	•	•	•	5.78	:			.37	.20	.52	.22	.08	.06	.57	:	.03	.40	* .	.01	• • • • • • • • • • • • • • • • • • • •	.42	:	.08	:	* 2 * 80 * 2	.63	3.20
AWALUA 29 INALIU 738 LAPANA NO 1 67.8 MACA NO 2 5	A	7.93 10.89 13.89 3.04	1.62	.08 .26	2.43	.06 .16 .05	.04	.01	1.64 2.00	*06 *21 7*40	.12 .38 2.87	.10 .11 T	.45 .42 .02	.77	.01		.63 .30 T	.19 .31 T	.12	.12		* *13	.42	.34 .72 T	.73	•		16 T	.01	.55	.20 1 .13 2	02	

Continued	-	-													Da.,	of M	onth-		-	-											HAWA AUGU		1967
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	20	00	20	01
AMUELA 192.2 AMUELA ATRPORT APAPALA RANCH 36 APOHO LANOING 935 AUMANA 88.1	A	1.17 .49 9.52 9.83 27.56		.0	2.80 3 6.65	.57 2.85	.01	•	.04 1.55	.24 .20	2.40	.06	5.55	* 47	.02	.13 .02 1.20	.04 T	.03 T	.02	.13 .11 .05 1.00	.02 T	* *	.04	T .16	7 •29 •	.35	.03 T .29 .43	T	.03 T		29	30	31
AWAINUI LOWER 193 EAAU 92 EALAKEKUA 26.2 EHENA 181.2 EHENA RESERVOIR 176.1	A A	10.08 18.62 9.15 5.06 4.02	1.00	.0	5 4.06 5 *	.05	:11	.50	T .05	5.54 .04 .04	5.29 .03	.15	2.28 .06 .51	.42 .68	.21	* 99 T * .24	.18 1.15	.16 .28	* .09 .15 *	3.00	* T *	.06	.08	.70	.07 1.01		•98 T	.06			* •03 •44	.06	.31 .0:
OLAKAA A ? F 6 PA 89.2 HALA 179A HALA MAULILI 176 HALA MISSION 175.1	AAAA	7.20 27.44 4.46 4.90 4.54		.0	4 7.47 3 1.28 2 1.39 3 1.34	•23	.01	.03	.02	9.11 1.02 .74 1.15	.15	.04	.12	.67 .67	.15	1.21 .52 .52 .06	.33 .04 .04	.09 .07 .11	.13 .35 .43 .35	.59 .26 .27	.02	:	.05 .05 T	* T .02 .05	.03	.03		.15	.48	n T .25	.03 .01	.03	7.2 .3 .1
JANE LOWER 196 NA AIRPORT 68.3 KAIAU 222 KUIHAELE HIC 199 KUIHAELE MILL 206	A	6.56 1.22 13.48 4.42 3.67		.0	7.35 1 2.24 2 2.27	.02	• •02		.01	5.30 1.50 .87		.02	1.59 T	.05 .02	7	• 16 • 15	•02	• 10 • 09 • 03	.03	.05 .05	* 14	.03	.09	.19	* .14	.04	.19	.09	.26		* T	.02	T +0!
LANI CAMP 79 LANI MAUKA 76 LANI SCHOOL SITE 78 NIHAU 68 C NUKA 2	A	12.37 5.17 8.85 9.21 1.85	.10	*2	2.60 5 I.50	:	*	.09	2.06 .12 .29	6.35 e .21 .09	2.30	.05 3.10	.02 6.10	.05 * .58	.05 *	.40 *	.09		•	.49	*12	.02	.02	* .39 T	* 2.36 .06	*	* 10	.72	.40 .20		2.30	.10 #	
UNA KEA BEACH UNA LOA SLOPE OBS OOLE HOLVALOA 68.1 ODLE PEN 147.1 AULA 18	A	.20 2.31 4.55 1.50 7.70		.0:	3 .20	.33	*	:	:	.05 1.79	.07	:	.21	.02	:	.I1	.20	.19	.12		:		:	1.68	.24 1.30	.04	.32	.23	:		.20	.24	
BUNTAIN VIEW 91 ALEHU 14 POOPOO 28 BULU FOREST 38.6 ULII 179	A A	24.38 7.96 4.29 19.14 4.66	.02	٠	2 3.92 2.54 4.43 5 1.40	.04	•	.02	1.14	0.64	3.41		.24	.29	.14	.68 .30 1.38 .35	.02	.03 *	.25 *	.71 .16 .02	.10 *	:	.01 .08 .53	.05	*09 T	.10	*62	.21	.52 * Y	1.24		.15	.6
KALA 223 IHIMALE 2 24.1 CHIO LANO EST 91.5 AUMAU 217 AUILO 221	A	14.06 7.55 17.67 7.84 11.94	.60	*14	6.50 36 5.04 6.85	3.86	.33 *	.03	.04	4.88 * 2.46 4.21	1.45 3.00 * .10		.03 .15 11.80	*02 T	.11 .01 .05 T	T •60	.03 .21	.06 .42 *	.11 .05	.06 .02 1.78	T #01	.26	T *	.°1	•02	T T	•11 •13 •23	.01 .71	.23 T *	.02 T		01	.1:
HALA 21 HOA 65 KAO 37 PAIKOU 144A PAIKOU MAUKA 140,1	A	9,47 17.74 11.10 22.52 25.20		• 04	3.20 2.23 4.55 6.36	.38	* T	.03 † T		1.21 4.20 * 5.78 7.21	7.10 8.13	9	.12 * .03	.12 • .37	.06 .16	.26 .27 .47	.16	.13 .38	.09 .11	.45	.03 * T	* T	.07	* T	.59 .11 .13	.13 * .19	•23 # T	.08	.21 * .26	•	.01		.2: 1.20 11.10
PEEKEO MAKAI 144 IHONUA 89 HAKULOA 107 IAKO 95A U KIHE 120	A	19.68 28.80 .82 .13 9.78	:10		4.63	.75		•	.01	4.90 .01	6.55	:11	.14	.02	,03	.43	.12	.47		.50					.38	.02 *	.03	*10				.08	٠
JU LAAU 102.1 JU LEHUA 73 JU MALI 113 JUOKUMAU 167 JU 00 82	A A	1.89 2.70 3.53 3.26 14.48	:	*	.85 4.75		*	* * * * * * * * * * * * * * * * * * * *	.03	.75	* * *12 2,35	.04	.05	.20		• 38	.07	. 03 .01	.28	.20	*	* * * * * * * * * * * * * * * * * * * *	.03	.01	.11	.01	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	.23	.09	:	.08	9.78 1.89 2.70 3.53 .04
U WAAWAA 94.1 OOLE ROAO 1 84 UTH POINT CORRAL 3 IKOA 118 OLU POINT USCG 159.2	A	2.71 26.01 2.64 10.16 2.53	.02	*	4.65 +37		.01	.01	.67	.05 4.65 1.24	.13 *		.03		.15	* *	.02	.01		.05	* .37		.18	.32 * *	.40	T *	•21 •62 •	.08	.24	.05	:	.01	1.2
ALAKEA SCO 88.2		24.44			5.20	.57				8.95	4.81	.11	.07	.64		1.16	.31	.04	.20	.79					.08	. 25	. 40	.02	.64	.06	.01	.04	

## SUPPLEMENTAL DATA

			Win		)		Relati	ve hum	dity ave	rages -		Numb	er of de	ays with	precipi	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI	DIAN TI	мЕ 8 Рм	Trace	.0109	.1049	.5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO. HAWAII. WE AIRPORT	19	0.8	6.2	17	E	03	82	76	69	82	6	6	9	2	1	3	27	35	7.8
HONOLULU: OAHU: WB AIRPORT	6	11.5	12.0	26	NE	26+	72	68	53	68	15	8	0	0	2	0	25	64	6.2
KAHULUI, MAUI, WB AIRPORT	5	12.1	13.1	28	ME	06+	86	82	63	79	1	7	2	1	0	0	11	59	6.1
LIHUE, KAUAI, WR AIRPORT	6	13.0	13.6	27	E	09	86	82	70	83	4	15	5	1	0	0	25	70	7.2

See Reference Notes Following Station Index

Continued									D	ΑI	LY	T	EM	IPE	ER.	TA	UR	ES	5												WAll AUGU:		1967
Station																Day	Of M	onth															erage
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Āvera
* * *		ŀ																															-
15LAND OF HAWAII																																	
HAINA 214	MAX	87		83 69	84	84 68	85 68	84	87 70	79 70	78 68	83 65	83	84	85 70	86 70	87 67	85 67	86 71	86 66	85 66	87 67	88	87 67	85 67	85 66	85 69	81	86	87 66	87 68	83	84.7
HAWAII VOLCNS NP HQ 54	MAX	72 54		75 58	70 57	75 57	74 56	73 57	71 58	69 59	71 51	69 54	65 52	72 59	75 6 Î	73 57	72 52	69 55	75 60	74 56	74 55	75 57	73 54	71 56	74 56	74 55	72 57	74 55	73 55	73 53	75 56	70 55	72.4
HILO WB AIRPORT	MAX	86 68		85 73	85 71	85 71	85 72	84 73	80 71	85 71	85 70	83 68	84	85 69	85 73	85 71	83 71	85 67	84 72	85 71	84	85 70	85 68	85 70	85 69	86 70	8 I 70	83	84	84 67	80 71	84	84.2
KAINALĮU 73B	MAX	80 64	80 62	83 66	81	82 65	78 67	82	81 65	84 65	78 63	80 64	77 63	82	82 64	82 67	78 66	80 63	81	83 66	80	80 63	80	80	80 65	79 64	82	80	83	81	18	81	80.7
KAMUELA 192.2	MAX MIN	74 60		73 63	78 61	74 61	75 61	75 60	74 62	76 62	74 61	73 60	75 60	77 63	80 64	75 61	73 61	75 57	77, 62.	76 61	73 61	75 61	76 61	75 60	75 l	77	76 62	7 <sub>2</sub>	76 62	77	77	75 60	75.3
KAMUELA AIRPORT	MAX	75 63		74 54	74 62	74 60	76 53	76 64	75 59	75 60	73 60	73 60	75 58	76 66	78 67	75 62	75 62	76 56	77 63	76 58	77 62	78 67	76 60	74	75 60	75 60	76 58	74 61	76 66	75 60	77	75 60	75.4
KEAAU 92	MAX	83		81 67	82 70	85 67	85 67	85 67	82 70	80 67	83 68	8 2 6 7	86 66	86 66	86 66	81	83 67	81 65	85 67	84	84 66	84	86 65	85 65	84 68	86 68	86 65	86	86 65	85 65	85	81	83.9
KEALAKEKUA 26.2	MAX	82 65		83 66	82 67	82 67	80 69	82 66	81 68	85 68	77 65	80 64	78 64	82 65	83 66	82 68	77 67	80 64	80	8 I 6 7	80 64	81	79 63	80 64	80 67	79 66	83 67	81	82	82	81	81	80.8
KOHALA MISSION 175.1	MAX	8 2 70		81 70	80 72	8 I 72	83 72	8 Z 7 1	83 71	79 71	76 71	80 69	8 1 6 9	83	84 72	82 71	82 69	81	83 69	82 70	83 70	83 70	83 69	83 70	82 71	84 71	8 2 7 2	81 70	83	83	83	83	81.9
KONA AIRPORT 68.3	MAX	86 70		86 70	86 71	86 72	86 74	86 73	85 73	86 73	86 72	86 71	84 71	86 71	85 72	86 72	85 71	85 71	86 75	87 72	86 73	85 72	86 73	85 73	84 72	85 70	86 70	85 72	85 73	86 74	85 73	84	85.5 72.0
KULANI CAMP 79	MAX	63 46	69 46	71 56	65 46	69 49	71 52	68 48	69 56	68 54	63 46	62 46	64	78 49	70 50	71 54	67 51	67 47	69 52	69 47	70 47	70 47	70 46	62		64	68 46	67 44	63 43	69 43	70 50	70 45	67.9 48.3
MAUNA KEA BEACH	MAX	89 75	90 72	90 76	92 72	93 79	9 I 7 1	90 72	89 75	85 75	84 73	93 71	87 71	90 73	89 77	89 75	92 68	89 72	89 76	89 61	89 73	90 73	88 74	88 74	88 74	87 73	92 75	93 75	89 79	90 73	89 73	89 74	89.4 73.2
MAUNA LOA SLOPE OBS	MAX	5 8 3 6	56 37	56 38	58 39	59 39	59 38	58 37	47 39	50 37	51 38	52 37	53 37	55 41	58 38	57	60 40	59 34	56 37	55 33	5 7 3 8	59 37	55 36	55 36	55 39	60 38	59 42	57 39	57 38	56 37	60 41	61	56.4 37.9
MOUNTAIN VIEW 91	MAX	81 61	79 61	08 16	74 64	81 63	81 63	82 65	75 65	75 64	78 62	78 60	73 58	80 62	8 1 6 2	77 65	80 63	75 59	8 2 5 8	81 63	8 O 6 O	82 62	84 58	80 58	82 61	85 61	81 67	78 61	78 60	81 58	83 57	75 62	79.4 61.4
NAALEHU 14	MAX	84 67	83 67	84 67	82 71	82 71	8 4 6 7	85 69	82 69	80 68	82 69	83 68	83 68	84 68	84 68	79 71	82 67	81 65	84 71	84 71	82 66	82 66	80 67	83 69	83	83 71	83 71	83 67	83 67	83 67	83 70	81 68	82.6 68.4
OOKALA 223	MAX	83 70	83 70	82 70	82 71	82 72	84 73	82 72	80 70	79 69	82 70	82 70	72 71	83 69	83 73	82 70	84 69	82 69	84 69	я3 71	85 69	85 71	85 70	84 70	85 72	84 71	83 70	80	85 69	84 69	85 69	81	82.6 70.2
OPIHIHALE 2 24.1	MAX	82 65	83 64	84 65	82 66	80 67	81 63	83 64	85 66	79 63	79 63	77 62	83 62	81 64	81 65	77 67	76 63	81 63	84 65	78 63	79 64	79 65	81 64	77 65	79 65	81 66	8 1 6 2	83	82 64	82 65	84 65	79 63	80.7 64.3
PAHALA 21	MAX	84 61	83 62	87 64	77 66	84 65	84 65	84 66	82 68	81 67	79 64	79 62	80 62	8 3 6 5	83 69	79 69	8 I 6 5	79 61	83 61	82 65	81 64	80 66	80 63	80 63	81	80 63	8 2 6 6	84	85 64	8 1 6 2	83 63	78 66	81.6
UPOLU POINT USCG 159.2	MAX	8 4 7 1	8 <b>4</b> 7 2	86 73	84 74	84 75	83 74	86 73	86 72	84 73	83 72	84 72	84 71	85 73	87 73	88	8 4 7 1	84 70	85 71	84 73	85 71	85 72	83 70	85 70	85 66	85 75	85 69	84 70	85 68	84 71	86 71	85 70	84.7 71.6
									_							-			_									-					

### **EVAPORATION AND WIND**

Station																Day	Of M	onth															r al
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
1SLAND OF KAUA1																																	
LIHUE WB AIRPORT	EVAP WIND MAX MIN	134	166 87	179	175	203		151 90	93	165	105	181	204 88	185	90	137		184	165 91	164		112 92	91	171 91	135	159 91	174	176	154 91	140 92	118 92	151 93	10.30 4826 90.5 70.8
* * * ISLAND OF CAHU																																	
HONOLULU OBSERV 702.2	EVAP W1ND MAX M1N		38	45 95	38 95	38 91	52 96	51	42 95	35	.08 21 81 73	.38 51 95 72	• 31 46 95 72	• 24 30 93 73	•17 17: 99 76	.32 38 97 73	. 36 36 95 73	35 93	.22 34 94 74	35 96	.37 32 97 75	.28 29 95 74	30 96	32 95	.33 29 94 73	38 96	• 28 56 90 73	93	.38 40 95 72	.34 25 95 72	.34 24 96 71	32 97	8.91 1140 94.1 73.0
* * * 1SLANO OF HAWA11																																	
HILO WB AIRPORT	EVAP WIND MAX MIN	67 92	51	33 85	92	59 91	•23 72 89 70	• 22 • 33 87	71 76	•32 58 85 70	• 22 50 92	.13 33 84	37 84	.22 70 92 67.	19 85	5 7 8 5	29 84	56 91	60 89	63	55 94	.29 61 92		.19 56 89 68	.20 64 89 68	.31 83 91	.01 48 83 68	61	.29 61 93	67	.04 44 82 69	. 24 53 93 68	1710

### STATION INDEX

	NO.	÷ 33	300	NO	TIMI	VATIO E AND	٧		NO.	NOI	3E ‡	UDE	ION	TI	RVAT	VID.	
STATION	INDEX NO DIVISION	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	EVAP. SPECIAL	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	ABLES	SPECIAL INT MOTES	OBSERVER
LANG > KAUAT ALEXANDER RESV. III	2140.02 KOLOA	2 21 57	159 32	1610		,	MC BRYDE SUGAR CO.	CILAND OF LANAI	3130	Ol LAHAINA	1 20 53	157 00	1640		w1	c	DOLE COMPANY DOLE COMPANY
EAT LAWAI 936 A	0145 01 KAWAIHAU 0240 02 KOLOA 0456 02 KOLOA 0465 02 KAWAIHAU	1 22 09 2 21 56 2 21 55 2 22 06 2 21 54	159 19 159 32 159 30	116 720 440 350	7 A		LINUE RLANTATION CO MC BRYGE SUG CO LTD MC BRYGE SUG CO LTO LINUE PLANTATION	MAHANA 694	5286 4 5301 4 5704	O1 LAHAINA O1 LAHAINA	1 20 47 1 20 50 1 20 49 1 20 53	157 00 156 55 156 53 156 55	30 1620 3370 1430		8A 7A W I MO	c	DOLE COMRANY DOLE COMRANY DOLE COMRANY
HALENAMAHO 1006 A	0470 0 KOLOA 0935 01 KAWAIHAU 1038 02 LIMUE 1170 01 KAWAIHAU	2 21 58	159 19 159 26 159 28	163 253 490 1218	6.4 7.4 8.4		MC BRYDE SUG CO LTO LINUE RLTN CO LTD GROVE FARM CO LTD S LINUE PLTN CO LTD	WATAKEAKUA 685	9021	01 LAHAINA 01 LAHAINA	1 20 46	156 55 156 52	1135 2040		WH.		DOLE COMPANY DOLE COMPANY
HUKIPO 945  ILIILIULA INTAKL 1050 INTAK. WAINIMA PC 1 86A KALIMIWAI PES 1131 A	2161 O WAIMEA 2222 OZ LIHUE 2227 OI HANALEI		159 41 159 28 159 34 159 26	1070 690	7.4 W.I		KENAHA SUGAR CO LTO  LIHUE PLIN CO LTO  SMC BRYGE SUG CO LTO FILAUEA SUG PLIN CO	FIELO 46 474 HAELAAU 477	0541	02 HANA 04 LAHAINA 04 LAHAINA 01 MAKAWAD	2 20 37 4 20 59 4 20 57	156 20 156 38 156 36 156 18	2060 1050 2980 2100		AR 7.A	k s	ULURALAKUA RANCH MAUI PINEAPPLE CO. MAUI RINEARRLE COMRANY U OF HAWAII EXR STA
KANALOMULUHULU 1075 KANEHA RESERVOIR 1092 A	3099 O WAIMEA 3104 OI KAMAIHOU 315 OI KAWAIMAU 3982 OI KAWAIMAU	3 22 08 1 22 08 1 22 05 1 22 05	159 40	3600 800 175	8A 8A 7A 7A 7A	c	KANALOHULUHULU R. S. LIHUE RLANTATION LIHUE RLIN CO LTO LIHUE RLIN CO LTO	HALEAKALA B E S 434 HALEAKALA RANCH 432 HALEAKALA RS 338 MALEAKALA SUMMIT 338.4 HALEAKAU 492.2	1004 1008	01 MARAWAO 02 MAKAWAO 02 MAKAWAO	1 20 51 1 20 50 2 20 46 2 20 43	156 19 156 15 156 16 156 17	1850 7030 9960 690		6 A 8 A	c	HALEAKALA RANCM CO HALEAKALA NAT PARK U OF MICH MT HKALA OBSY PHIL SCOTT
KEKAHA 944 KILAUEA 1134 AILAUEA FIELD 17 1135 A	4272 03 WAIMEA	3 21 58	159 43 159 25 159 24	317 415	8 A 6 A 7 A		KEKAMA SUGAR CO LTO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	HALIIMAILE 423 HAMAKUAPOKO 485 HANA 354	1016 1075 1086		1 20 55 1 20 52 1 20 55 1 20 45	156 21 156 21 155 59	1070 320		5A 5A 8 A	c	MAUI RINEAPRLE CO. HAWAIIAN COM + SUG CO HARRY HASEGAWA
KICAUEA PUINT 11+3 KITANO 1037+1 KOLO 1'33 KOLOA 936 A	4568 01 HANALE1 465° 0 WAIMEA 4735 03 WAIMEA 4742 02 KOLOA	1 22 14 3 22 02 3 22 04 2 21 55	159 41	180 2150 36	84 8A	-	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO LTD GROVE FARM CO LTO	HANA AIRPORT HANAHULI 281 HOLUA CABIN 259.5 HONOKOHAU 430	1125	01 HANA 01 HANA 02 MARAWAO 04 LAHAINA	1 20 48 1 20 41 2 20 45 20 58	156 01 156 01 156 13 156 36			1 A 7 A MO MO		HAWAIIAN AIRLINES KOALI RANCH HALEAKALA NATL RARK RGS MAUI RINEAPRIE CO
KOLOA MAUKA 994 A KOLOKO RES 1137 A KURUJULA 935 A LIMUE VARIETY STA	4742 02 KOLOA 4750 02 KOLOA 4758 01 KAWAIHAU 4950 02 KOLOA 5560 02 LIHUE	1 22 11	159 29 159 23	240 640 737 100 375	7A 7A 6A 7A		GROVE FARM CO LTO KILAUEA SUG RLTN CO MC BRYDE SUG CO LTO	HONOKOHUA 493 HONOLUA FLD 49 494 HONOMANU GULCH 341 IAO NEEDLE 387.2	1914 1935 2208	04 LAHAINA 04 LAHAINA 01 MAKAWAO 03 WAILUKU	4 21 00 4 21 01 1 20 47 3 20 53	156 39 156 38 156 14 156 33	135 125 6280 1100		6A NO	· ·	MAUI RINEAPRLE CO MAUI RINEARRLE CO HALEAKALA RANCH CO STATE OIVISION OF RARKS
LIMUE 1020 A LIMUE WE AIRPORT R	5575 OZ LINUE 558° OZ LINUE 5785 OZ KOLOA 5864 OI WAIMEA	2 21 52	159 23 159 22 159 21 159 27	207 103	MI MID		MAWAIIAN SUGAR RL ASSN LIHUE RLTN CO LTD U S MEATMER BUREAU U S COAST GUARD OLOKELE SUGAR CO	KAHULUI WB AP I	2572	O WAILUKU OI MAKAHAO	3 20 54 1 20 51 1 20 54	156 38 156 26 156 16	2000 48 2520	MID M	WI ID MO	C J	PIONEER MILL CO LTO  U S WEATHER BUREAU E MAUI IRR CO LTO E MAUI IRR CO LTO
MANA 1026 M + M 1001 MOHIHI UPR CROSS 1083	6082 0 WAIMEA 6097 02 6433 01 WAIMEA	3 21 55 3 22 02 2 21 55 3 22 07	159 38 159 46 159 28 159 36	140 11 300 3500	94 98 MI=	1	KEKAHA SUGAR CO LTD GROVE FARM COMPANY S U S GEO SURVEY	KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH MOUSE 259 KEAHUA 410 KEAHAE 346	3433 3576 3910	01 MARAWAO 04 LAHAINA 02 HANA 0 MAKAWAO 01 HANA	1 20 54 - 20 53 2 20 39 3 20 52 1 20 50	156 13 156 38 156 08 156 23 156 10	700 1585 1020 480 980		7A W I SA	с	PIONEER MILL CO LTO KAUPO RANCH HAWAIIAN COM + SUG CO
MOUNT WATALEALE 1047 NIU RIUGE 1035 N WATUUA DITCH 1051	6529 01 KAWATHAU 6565 02 WAIMEA 6850 03 WAIMEA 6888 02 LIHUE	1 22 11 2 22 04 22 02 2 22 04	159 44 159 28	330 5075 1250 1110	6# 6A 7A		LIHUE PLANTATION CO. S U. S. GEO. SURVEY KEKAHA SUGAR CO LTD LIHUE PLIN CO LTD	KEAWAKAPU BEACH 260.2 KIHEI 311 KIPAHULU 258	4193	02 MAKAWAD 03 WAILUKU 01 HANA	2 20 42 3 20 47 1 20 39	156 27 156 27	20 90 260		MO 6P 7A 7A	c	E MAUI 1RR CO LTO A. L. CORELL HAWAIIAN COM + SUG CO KIPAHULU CATTLE COMPANY
N WAILUA RIVER 1055  PH WAINIHA 1115  PRIMCEVILLE RANCH 1117  PUEHU RIOGE 1040	6893 01 LIMUE 8155 01 MANALEI 8165 01 MANALEI 8205 03 WAIMEA		159 26 159 34 159 29 159 42	101 295 1660	6A 7A 7A		S LIMUE PLTN CO LTO  MC BRYOE SUG CO LTD  PRINCEVILLE RANCH  KEKAHA SUGAR CO LTD	KUKUI 380 KULA HEIGHTS 323.2 KULA SANATORIUM 267	5003	O LAHAINA O MAKAWAO O MAKAWAO	4 20 54 2 20 47 2 20 42 4 20 53	156 35 156 19 156 22	5788 2520 300=	7.5	6A 7A	c s	MAUI PINEAPPLE CO KENNETH WILLEY KULA SANATORIUM
PUHI 1:13 A	8217 02 LIHUE 8573 02 LIHUE 8694 02 LIHUE 8941 02 KOLOA	2 21 58 2 21 57 2 22 04 2 21 54	159 24 159 27	329 420 740 215	8A 8A		GROVE FARM CO LTO GROVE FARM CO LTD LIMUE PLANTATION CO. MC BRYDE SUG CO LTO	LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 MAHINAHINA 466	5408	O LAHAINA	4 20 53 4 20 51 4 20 51 1 20 53 4 20 57	156 39 156 15	1280 220 1240 715		7A AR 7A MO 7A		PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD E MAUI IRR CO LTO PIONEER MILL CO LTD
, WAHIAWA MOUNTAIN 990 A WAIAHI LOWER 1054 WAIAHI UPPER 1052	8949 02 KOLOA 8958 02 LIHUE 8966 02 LIHUE	2 22 01 2 22 01 2 22 01	159 31 159 27 159 28	2100 565 780	6 6 A 8 A		MC BRYDE SUG CO LTD LIHUE PLTN CO LTD LIHUE PLTN CO LTD	MONUPEA 475 NAVALELE -FLO 60-497	6521	0° LAHAINA 03 WAILUKU 0° LAHAINA	4 20 57 4 20 59	156 32 156 37	1040 129 340	v			B 5 OF A COUNCIL MAUI PINEAPPLE CO MAUI PINEAPPLE COMPANY
WA14EA 947	9253 03 WAIMEA 9467 02 LIHUE 9629 03 WAIMEA 9955 02 KOLOA	3 21 59 2 22 02 3 21 57 2 21 54	159 43 159 21 159 41 159 31	10 50 20 210	8A 7A 8A		KEKAHA SUGAR CO LTD LIHUE PLANTATION WAIMEA SUG MILL CO MC BRYOE SUG CD LTO	OLINDA 332 OLOWALU 296 OLOWALU GULCH 377 PAAKEA 350	7040 7059 7066	01 MAKAWAO 0 LAHAINA 0 LAHAINA	1 20 48 20 49 20 51 1 20 49 1 20 55	156 17 156 38 156 36 156 07	800 1260	V	AR 7P MO 6A		MAUI CO WATER DEPT PIONEER MILL CO. PIONEER MILL CO LTD F MAUI IRR CO LTD
ISLAND OF OAHU ATEA FIELO 625 761 A	0111 03 EWA	21 25	157 57	455	7A		WATAHOLE WIR CO LTD	POHAKEA BRIDGE 307.2	8060	01 WAILUKU 02 HANA 01 MAKAWAO 0 WAILUKU	2 20 41 1 20 55 20 49	156 23 156 08 156 19 156 31	170 3570 485 167		6A W I 7A 6A		HAWATIAN COM + SUG CO KAUPO RANCH CO. HASEROT PINEAPPLE CO. WAILUKU SUGAR CO
BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE OCONUT ISLAND 840.1 DOWSETT HIGHLANDS 780.	0211 02 HONOLULU 0300 03 EWA 0340 01 KOOLAUPOKO 0350 01 KOOLAUPUKO	2 21 19 3 21 25 1 21 39 1 21 26	158 04 157 56 157 47	20 680 20 13 565	0A 6A 5P 8	1	BOARD OF WIR SUPPLY DEL MONTE CORPORATION RICHARD COBURN U OF M MARINE LAB J. L. BANNING	PULIPOLI SPRINGS 267.27  PUOHOKAMOA 2 343  PUU KUKUI MAKAI 472  PUUNENE 396	8336	01 HANA 0 LAHAINA 0 WAILUKU	2 20 41 1 20 50 4 20 55 20 53	156 20 156 13 156 38 156 27	2980 2500 60		AR MO MO 7		STATE DIV OF FORESTRY  E MAUI IRR CO LTO PIONEER MILL CO LTD HAWAIIAN COM + SUG CO
EWA PLANTATION 741 HALAWA SHAFT 771.2 HELEMANO INTAKE 881 A	0438 02 HONOLULU 0507 03 EWA 0964 02 HONOLULU 1384 0: WAIALUA 1540 07 EWA	2 21 21 21 21 2 21 23 6 21 33 21 24	157 54	42 170 1274 2220	8 7A W1 VAR	E	EWA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA AGR CO LTD H. V. VON HOLT	PUU PAK1 352 SPRECKELSVILLE 400.2 TWIN GATES 261.3	8553 8688 8742	01 HANA 0 WAILUKU 0 MAKAWAO 01 MAKAWAO	1 20 46 3 20 54 3 20 46	156 03 156 25 156 23	2160 85 1310 5230		8A AR		EAST MAULI IRRIGATION CO HAWALIAN COM + SUG CO KAONOULU RANCH HALEAKALA RANCH CO
HONOLULU OBSEPV 702.2	1918 0 EWA 1919 DZ HONOLULU 1924 OZ HONOLULU	3 21 19 2 21 20 2 21 19		5 7	9A HID MID HID MID	9.1	U S COAST + GEODETIC J U S WEATHER BUREAU ESSA-WEATHER BUREAU	UKUMEHAMÉ 301 ULUPALAKUA RANCH 250 WAHIKULI 364	8750 8760 8955	0 LAHAINA 02 MAKAWAO 0 LAHAINA	1 20 48 4 20 48 2 20 39 20 54	156 35 156 24 156 40	75 1900 580		M ∩ 7⊨ 8 A 8 A	c	PIONEER MILL CO LTO ULUPALAKUA RCH CO LTO PIONEER MILL CO LTD
WHONOLULU SUBSTA 704 H S P A EXP STA 707 KAMLAKE1 724.6 KAMANA 883 KAMIKU 912	2146 02 HONOLULU 2269 02 HONOLULU 2462 01 KOOLAULOA 2570 01 KOOLAULOA	2 21 18 2 21 18 1 21 31 1 21 41	157 50 157 43 157 54 157 57	50 10 800 25	8A WI	1	H S P A EXP STATION MRS. MILLIE ZAPATA WAIAHOLE WTR CO LTO KAHUKU PLTN CO	WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI OAM 336	931 9332 9335	03 WATLUKU 0= WATLUKU 01 HANA 01 MAKAWAO	3 20 55 4 20 57 1 20 52 1 20 49	156 14	320 300 1200 4320	V	6A 6= W= AR		WAILUKU SUGAR CO WAILUKU SUGAR CO E MAUI IRR CO LTD MAU1 COUNTY WTR DEPT
KAIL A FIRE STA 791.3 KALIHI RES SITE 777 KAMEHAME 724.7	2683 01 KOOLAUPOKO 2960 02 HONOLULU 3056 01 KOOLAUPOKO	1 21 24 2 21 23 1 21 19	157 45 157 50 157 41	910 1380	MID	1	KAILUA FIRE STATION BOARD OF WYR SUPPLY HAWAII NATIONAL GUARD	WAIKAPU 390 WAILUA IKI 348 WAILUKU 392 WAIDPAI RANCH 256	937	0 WAILUKU 01 HANA 03 WAILUKU 02 HANA	3 20 52 1 20 48 3 20 54 2 20 38	156 31 156 09 156 30 156 12	470 2630 200 220		8A 0C		WAILUKU SUGAR CO S EAST MAUI IRRIGATION CO ST. ANTHONYS BOYS SCH HALEAKALA RANCH CO
KAPAKA MAKAI 905.1 KAPALAMA 773	3113 01 KOOLAUPOKO 3123 01 KOOLAUPOKO 3220 01 KOOLAULOA 3268 02 HONOLULU 3734 05 WAIALUA	1 21 25 1 21 23 1 21 36 2 21 21	157 47 157 54 157 52	225 365 10 614	7A 7A 8A	L	STATE MOSPITAL KANEOME RANCH CO GEORGE H. SWIFT KAMENAHEHA SCHOOLS WAIALUA AGR CO LTD	15LAND OF HAWAII AHUA UMI 75	0040	05 N KONA 01 N KOHALA	5 19 38	155 47	5220		м		GREENWELL RANCH
KAWAIHAPAI 841 KAWAI IAI INTAKE 863+2- KAWELA MAUKA 906+3 KEMOO CAMP 8 855 KOOLAU DAM 833	3734 05 WAIALUA 3741 05 WAIALUA 3825 02 KOOLAUPOKO 4318 05 WAIALUA 4766 05 WAIALUA	5 21 35 5 21 34 1 21 40 5 21 33 5 21 30	158 00	20 1180 1050 725 1160	7A W1	1	WAIALUA AGR CO LTD HAWAII NATIONAL GUARD WAIALUA AGR CO LTO -C + F OFFICER HEOG	AWINI 182.1 EAST HONUXANE 1838 HAINA 214 HAKALAU 142 HALEMAUMAU 52	0450	01 N KOHALA 01 5 KOHALA 01 HAMAKUA 02 5 HILO 03 KAU	1 20 10 1 20 07 1 20 06 2 19 54 3 19 24	155 43 155 43 155 28 155 08 155 17	1870 4240 461 105 3648	7.6	WI Mc 7 7 Mc	Į.	KOMALA OITCH CO LTD KOHALA DITCH CO LTO HONOKAA SUGAR CO PEPEEKEO SUGAR CO. HAWAII NAT PARK
LUALUALEI 804 LUALUALEI WTR TUNNEL	5647 04 WATANAE 5650 04 WATANAE 5655 01 KOO AUROKO	4 21 29	158 08	113 1500 240	7,A W1		US NAVY HILNOR LUM	HALEPIULA 117 HALEPOMAKU 111 HAWAII VOLCNS NP HQ 54	1060 1065 1303	01 HAMAKUA 02 HAMAKUA 02 KAU 01 N KOHALA	1 19 56 2 19 46 2 19 26 1 20 14	155 24 155 28 155 16	5770 9220 3971 600	8A	MO MO BA		HAWAII NAT PARK KUKAIAU RANCH CO STATE OIV. OF PARKS HAWAII NAT PARK KOMALA SUGAR CO
HAYANNI POINT 724	5675 02 MONOLULU 5766 04 WAIANAE 5781 04 WAIANAE	1 21 24 2 21 17 21 28 4 21 29 2 21 19	158 13	40 25 160 538	7A 7A 84 8A 8A		CAPITAL INVEST CO CAPITAL INVEST CO	HILD W8 AIRPORT I	R 1492 A 1557	02 S HILO 04 N KONA	2 19 43	155 04	27 3220 14	ніо н		or J	U 5 WEATHER BUREAU STATE DIV OF FORESTRY VARIOUS RANCH HANDS
HANDA 712 MANDA TUNNEL 2 716 MAUNAWILI 787+1 MODANALUA 770	5800 02 HONOLULU 6122 02 HONOLULU 6130 02 HONOLULU 6222 01 KOOLAUPOKO 6395 02 HONOLULU	1 21 21	157 48	220 650 410 20	8 A M 1 :	1	U S COAST GUARD MRS.JOHN H.BEAUMONT BOARD OF WTR SUPPLY EXP. STA. H.S.P.A. JOHN A ROXBURGH	HONOHINA 137	1701	04 N KONA 04 5 KONA 02 N HILO 01 N KOHALA 02 S HILO 04 N KONA	4 19 37 4 19 27 2 19 56 1 20 09 2 19 51	155 09 155 44 155 09	1089 300 800 1100		7A 7A 7A	Y	MR5 MALAE W HUA PEPEEKEO SUGAR COMPANY KOHALA OITCH CO LTO PEPEEKEO SUGAR CO.
MOUNT KAALA 844 NUUANU RES 4 783 NUUANU RESERVOIR 5 775	6553 0= WAIANAE 6928 02 HONOLULU 6933 02 HONOLULU	2 21 21 2 21 21 2 21 21	158 09 157 49 157 50	4025 1048 410	MIC VAR		FEDERAL AVIATION ADM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY	HUALALAI 72 HUEHUE 92A	A 2151 A 2156	04 N KONA 04 N KONA 04 N KONA	4 19 40 4 19 42 4 19 45	155 53 155 52 155 59	6250 8190 1960		H: H: 6A		STATE DIV OF FORESTRY STATE DIV OF FORESTRY HUEHUE RANCH
OPACULA 870 PALULO VALLEY 718 PAUDA FLATS 784 PEARL CITY TERCE 754-1 PORTLOCK ROAD 724-4	7150 0 WAIALUA 7664 02 HONOLULU 7810 02 HONOLULU 7933 0 EWA 8126 02 HONOLULU	2 21 21 3 21 25	157 58	1060 995 1640 240	7A 7A MIA MIO		WAIALUA AGR CO LTO BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAHES MUMENO	KAHIAWAI 3.4 KAINALIU 738	2327 2512 2751	04 N KONA 03 KAU 04 N KONA	3 19 08 4 19 30 3 19 08 4 19 32	155 46 155 56	1340 1340 3700 1500	7.A	7A 8A 7A		HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELL P. SMITH KONA EXPERIMENT STA
PRI WAHIAWA 820.2 PUNALUU 884	8172 05 8310 01 KOOLAULOA 8316 02 HONOLULU	5 21 28	157 43 158 01 157 54 157 51	700 20 360	8 8A 8A		GEORGE L. BRENNER PINEAPPLE RESEARCH INST KAHUKU PLIN CO	KALAPANA NO 1 67.8 KAMAOA NO 2 5 KAMUELA 192.2 KAMUELA AIRPORT KAPAPALA RANCH 36	8406	02 S HILO 03 KAU 01 S KOHALA 05 5 KOHALA 03 KAU	2 19 20 3 19 02 1 20 01 5 20 00 3 19 17	155 02 155 40 155 40 155 40 155 27	1375 2670 2665	6 A 8 A	WI 6A 8A		HAWAII VOLCANOES NAT PX HAWAIIAN RANCH CO PARKER RANCH HAWAIIAN AIRLINES
ST STEPHENS SEH 788 TANTALUS PEAK 780 TANTALUS 2 780.5	8600 01 KOOLAUPOKO 8730 02 HONOLULU 8738 02 HONOLULU	1 21 22 2 21 20 2 21 20	157 47 157 49 157 50	488 2000 1325 79	7/		REV R CULLINAN BOARD OF WATER SUPPLY P+ E+ WHITE OEPT+ OF GEOSCIENCE	KAPOHO LANGING 935 KAUMANA 88.1	3369	02 PUNA 02 5 HILO	2 19 30	154 52	2140 290 1123 1080	٧	6A AR AR	L	HAWAIIAN RANCH CO. INC. BOARD OF WATER SUPPLY SHIGEO MASUYA MONOKAA SUGAR CO
wAHIAwA OAM 863	8815 02 HONOLULU 8945 0- WAHIAWA 8964 01 KOOLAUPOKO 9185 02 HONOLULU 9185 0 WAIALUA	1 21 28 2 21 17 5 21 35	157 49 158 03 157 53 157 47 158 07	854, 745 40 32	7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7	1	WAIALUA AGR CO LTD WAIAHOLE WTR CO LTD SPENCER TINKER WAIALUA AGR CO LTO	KEALWA CAMP 22.1 KEALAKEKUA 26.2 KEANAKOLU CAMP 124.2	3925	01 HAMAKUA 02 PUNA 03 KAU 04 S KONA 02 HAMAKUA	1 20 05 2 19 38 3 19 14 4 19 30 2 19 55	155 39 155 02 155 29 155 55 155 21	280 1700 1450 5280		8A 8A	1,500	PUNA SUGAR CO MAWATIAN AGRI. COMPANY MISS AMY GREENWELL STATE DIV. OF FORESTRY
WAIANAE 798	9231 04 WAIANAE 9238 04 WAIANAE	4 21 27	158 11	20 1575 600	87 W1 W1		CAPITAL INVEST CO CAPITAL INVEST CO WAIAHOLE WIR CO LTO	KEHENA 181.2 KEHENA RESERVOIR 176.1 KIOLAKAA A + F 6 KIPA 89.2	A 4245 A 4250 A 4625 A 4632	01 N KOHALA 01 N KOHALA 03 KAU 02 5 HILO	1 20 07 1 20 10 3 19 04 2 19 44	155 45 155 48 155 38	3840 2520 1925 1490		W I' 7 A MO W I		KOHALA DITCH CO LTO KOHALA DITCH CO LTO STATE DIV OF FORESTRY MAUNA KEA SUGAR CO.
WAIKIKI 717.2 WAILUPE RESERVOIR 170 A WAILUPE VLY SCH 723.6	7500 07, HONOI ULU	1 21 30 2 21 16 2 21 18 2 21 18	157 53 157 49 157 45	760 10 170 180	8A 84 W1		WAIAHOLE WTR CO LTD HONOLULU ZOO BOARD OF WTR SUPPLY	KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175.1	A 4670 A 4675 4680	01 N KOHALA 01 N KOHALA 01 N KOHALA	1 20 14	155 47 155 47	309 960 537	8.4	8A 7A: 8A		KOHALA SUGAR CO KOHALA SUGAR CO
WAIMANAL 794 A WAIMAA 892 A	9521 01 KOOLAUPOFU 9593 U5 WAIALUA 9738 03 EWA 9980 02 HONOLULU	5 21 38	157 44 158 04 158 01 157 47	60 420 59 1100	8 A 7 A 8 A H I C	1	5T DIV WIR + LAND DEV WAIALUA AGR CO LTO OAHU SUGAR CO BOARD OF WIR SUPPLY	FOIAWE LOWER 196 KONA AIRPOPT 68.3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE HILL 206	4685 4764 4815 4928	01 HAMAKUA 04 N KONA 01 HAMAKUA 01 MAMAKUA	1 20 14 1 20 05 4 19 39 1 20 02 1 20 07 1 20 08	156 01	720 15 840 980	8.4	W I 8 A 6 A 6 A		K. LYHAN BONO HONOKAA SUGAR CO MAWAIIAN AIRLINES HAHAKUA MILL CO HONOKAA SUGAR CO
ESLAND OF MOLORAS	∠896 01 MOLOKAI	1, 21, 12	156 59	30	8.4		KALAUPAPA SETTLEMENT	KULANI CAMP 79 KULANI MAUKA 76	5011	01 MAMAKUA 02 S HILO 05 N HILU	2 19 33 5 19 35	155 18 155 27	300 5170 8300	8 4	6A 8A W1		MONOKAA SUGAR CO ST DEPT OF SOCIAL SER U 5 WEATHER BUREAU
KAUNAKAKAI MAUKA 536.5 KEONFLELE PENS 551	3046 01 MOLOKAI 3541 01 MOLOKAI 3547 01 MOLOKAI 4374 01 MOLOKAI 4778 01 MOLOKAI	1 21 04 1 21 06 1 21 12 1 21 12 1 21 09	156 52 157 01 157 01 157 12 157 02	560 560 678	6.4 WK 7.4	K	W. J. CARSTEN MOLOKAI RANCH LTD MOLOKAI GENERAL HOSPITA MOLOKAI RANCH, LTO.	KULANI SCHOOL SITE 78 . LALAMILO FLO OFF 191.1 LANIHAU 68 C LAVA TREE PARK 66.1	5260 5330 5460	01 S KOHALA 04 N KONA 02 PUNA	2 19 35 1 20 01 4 19 40 2 19 29	155 58	5735 2615 1530 650		W I		ST DEPT OF SOCIAL SER STATE DEPT OF L + N RES KONA EXPERIMENT STATION STATE DIV. OF PARKS
MARULEHU 542 MAUNAUGA 511 MOLOKAI AP 524 RUUOHOKU RANCH 542.1	6138 OI MOLOKAI 6190 OI MOLOKAI 6534 OI HOLOKAI 8549 OI HOLOKAI	1 21 04	157 02 156 48 157 13 157 06 156 44	20 1075 450 700	8 · 8 / 6 /		DEL HUNTE CORPORATION H 5 P A LIBBY MCNEILL + LIBBY ALOHA AIRLINES PUUOHOKU RANCH	MIDDLE HOLUALOA 68-1	6198	03 KAU 04 5 KOHALA 05 HAMAKUA 04 N KONA 01 N KOHALA	3 19 07	155 50 155 50 155 35 155 58	1760 103 11146 475 1380	A8 MIOIM	BA BA ID BA AR		STATE DIVISION OF PARKS U.S. WEATHER BUREAU U.S. WEATHER BUREAU KONA EXPERIMENT STA
	9404 01 MOLOKA1		156 55	3550	TV		HOLOKAI RANCH		A 6407	03 KAU	3 19 11		600	V	AR MO		KAHUA RANCM HAWAIIAN RANCH CO

STATION	INDEX NO.	NOISINIO	DISTRICT	DRAINAGE ‡	LATITUDE	LONGITUDE	ELEVATION		SER'	D	OBSERVER	STATION	INDEX NO.	DIVISION	OISTRICT	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION	T	ERVA TABL	ES	OBSERVER
MOUNTAIN VIEW 91 NAMERN 14 NAMERN 14 NAMEN 15 NAMEN 15 NAMEN 15 NIULII 179 DOMALN 22 PARAMAN 21 PAR	71: 68: 71: 71: 71: 72: 73: 74: 74: 77: 80: 80: 80:	18 0 0 7 7 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 0 1 1 0	2 PUNA 3 KAU 5 KONA 5 KONA 6 KONA 11 K KOPHALA 12 N HILO 6 S KONA 11 HAMAGUA 11 HAMAGUA 11 HAMAGUA 12 PUNA 13 KAU 14 PUNA 15 PUNA 16 P	342124211 3232222	19 04 19 28 19 19 20 14 20 01 19 16 20 05 20 03 19 12 19 30 19 22 19 47 19 47 19 47 19 44 19 45	155 07 155 35 155 55 155 55 155 57 155 17 155 53 155 20 155 20 155 20 155 20 155 20 155 20 155 25 155 06 155 05 155 05 155 05	1530 673 395 1400 75 430 1270 445 415 800 200 1270 100 1730 6511 5	8A 7A 7A	8A 7A VAR 6A	c	PUNA SUGAR CO HUTCHINSON SUGAR CO KOMA EXPERIENT STA HAMALI VOLCANCES NAT PA LAUPANCHIPES SUGAR CO MISS C LECNARO BOARD OF MATE SUPPLY PAGUMAN SUGAR CO HAMALIAN AGR CO PUNA SUGAR CO(PPANY HAMALIAN RANCH CO. INC. HAWALIAN RANCH CO. INC. MAYALIAN RANCH CO. STATE MAYAN CA SUGAR CO. PEPEEREO SUGAR CO.	PUU LAAU 102-1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82 PUU WAANAA 94-1 SADDLE ROAD 1 84	845 846 851 854 855 857 867 867 878 883 902	2 05 0 04 5 01 8 01 0 02 5 05 0 02 5 03 9 03 0 01 5 02 5 03 9 03	HAMAKUA HAMAKUA HAMAKUA HAMAKUA N KOHALA 5 HILO N KONA 5 HILO KAU KAU KAU KAU KAU N KOHALA 5 HILO N KOHALA	5 4 1 1 2 5 2 3 3 3 1 1 2 1 2 1	19 50 19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40	155 24 155 36 155 49 155 26 155 20 155 21 155 12 155 12 155 41 155 41 155 23 155 58 155 27 155 47	7440 4850 6960 1800 6340 2520 2340 400 305 3420 1	8A	MO M M M M M M M M M M M M M M M M M M M	C C	KUKALAU PANCH CO STATE DIV OF FISH-GAME VUKALAU PANCH CO FUNDAL PANCH CO KOHALA DITCH CO LID W. H. SHIPMAN, LID GILLINGHH RANCH INC GILLINGHH RANCH INC GILLINGHH RANCH CO FEDERAL ELECTRIC COP FUNDALAU PANCH CO U.S. COAST GUARD SHINICHI KANCSHIRO KANLA RANCH

† DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL. 4-WESTERN 5-NORTH-CENTRAL. MOLOKAE: 1-(NO DRTRA-ISLAND DIVISIONS) DAUI: 1-NORTHEASTERN 2-SOUTHERN 3-(SCHTRAL. 4-WESTERN 5-CENTRAL 2-WESTERN 5-CENTRAL 3-WESTERN 5-WESTERN 5-CENTRAL 3-WESTERN 5-CENTRAL 3-WESTERN 5-CENTRAL 3-WESTERN 5-CENTRAL 3-WESTERN 5-CENTRAL 3-WESTERN 5-WESTERN 
#### REFERENCE NOTES

Additional information regarding the climate of Hawail may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Hopolulu, Hawaii, or to any Weather Bureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA BRAWAII"

DIMENSIONAL UNITS: Duless otherwise indicated, diseasional units used in this bulletin are and stud movement to make the supplemental Data" table directions entered in figures are tens of degrees Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

ORSERVATION TIME Data in the "Wootbly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours coding attime of observation unless indicated otherwise by reference letters in the Station Index The Station Index shows observation time in local standard time.

EVAPORATION 1s measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" fable. Max and Win in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Bawaii state key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December Issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station index
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- + And Also on an earlier date or dates
- ++ Highest observed one minute windspeed This station ie not equipped with an instrument to measure fastest mile data
- Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station mass in "Climitological Dais" table, "Duly precipitation" table and "Station index", indicates amount carried in the "Drotal" column is for the period from last measurement of a preceding month through the last measurement of the current month ofer Daily Precipitation" table of this and previous bulletins for datee of measurement where gages are read only once muchily, measurements and on the first
- H Adjusted to a full month.
- J "Supplemental Data" table
- M One or more days of record missing; if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed dally record.
- R Amounts from recording gage
- T Trace, an amount too small to measure
- V Includes total for previous month
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
- AR Observation made after rain.
  - c lo Special Column of Station Index Indicates Recording Rain Gage Station Hourity prehibated nature are processed for special purposes, and are published later in the "Hourity Precipitation Data" builetin it if daily assounts are published in "Climatological Data" builetin they are from a separate gon-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourity Precipitation Data" builetin.
  - MO Gage read once montbly; usually on the last day
  - OC Gage readings at periods varying from a few weeks to several months
  - 8 Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December Issue, or as delayed data in the June lesue of this publication.
  - SS Observation time is near sunset
- VAR Observation time is variable.
- WI Gage read weekly or irregularly only
- WM Gage read weekly and last day of month
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground, however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

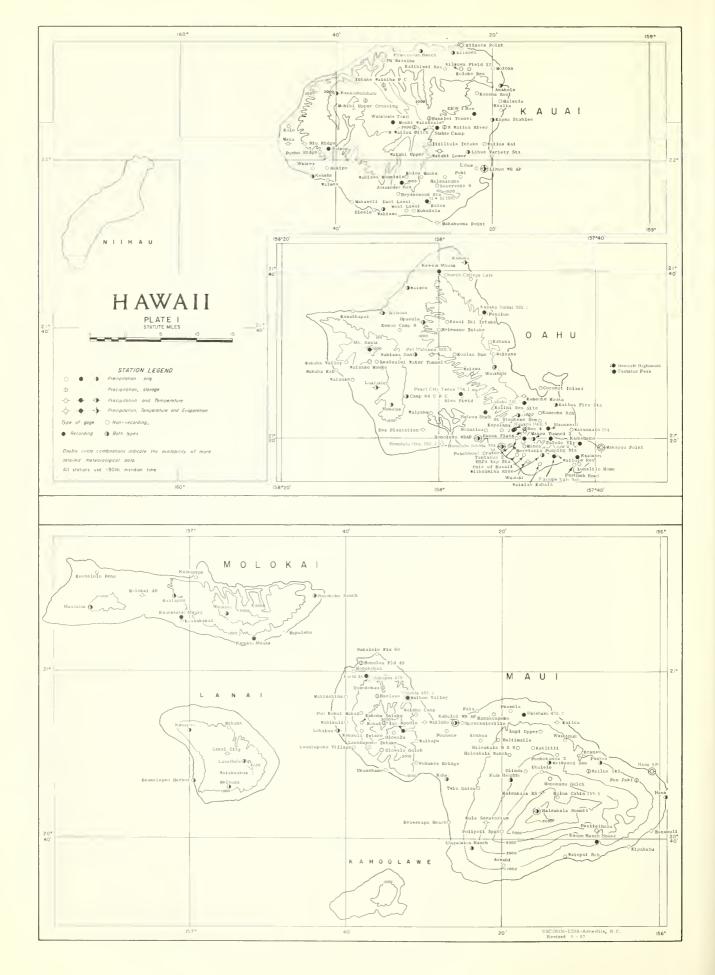
Statlons appearing in the Index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue.

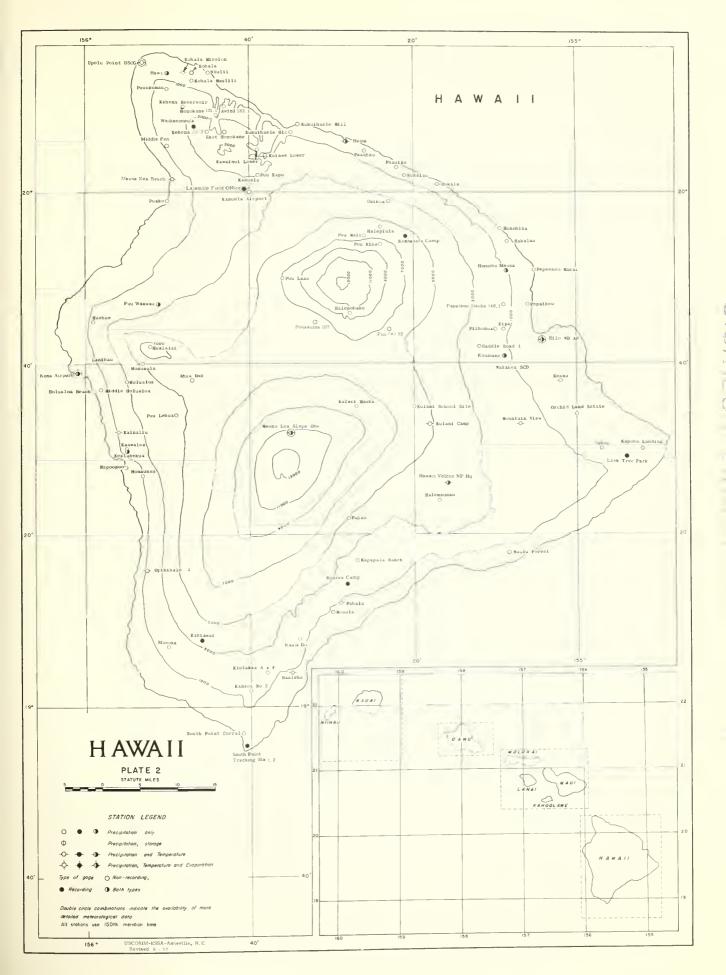
General weather conditions in the U. S. for each month are described in the publications MONTBLY WEATHER REVIEW, MONTBLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the history of changes in locations, elevations, exposure, etc., of mubitations through 1937 may be found in the publication "Substation Bistory" for this State, price 40 cents. Similar information for regular Meather Bureau stations may be obtained and in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Depretended of Documents at the address shown above.

Subscription Price 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and soney orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Goverament Printing Office, Nashington, D. C. 20402.

USCOMM-ESSA-ASHEVILLE-11/30/67-890







THE OF CO.

CLIMATOLOGICAL DATAERSIT

U. S. DEPARTMENT OF COMMERCE
ALEXANDER S TROWSRIDGE Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

HAWAII

SEPTEMBER 1967 Volume 63 No. 9

JAN 12 1968

CLIMATOLOGICAL DATA

														1	· C					0.	/				
					len	pera	ture			_		to. of	Days		-	2	TFr		Precip	Sno.	v, Sleet		N	o. of I	Days
Stotion					mol mol					Daya	-	ax.	Mi	-			m	11.					0	o.Le	More
		Average Maximum	Average	Average	Deporture From Normol	Highest	Dote	Lowest	Dote	Dogree D	90 or Abore	32 or Below	37 or Balow	flataw	Total	Deporture	From Norn	Greofest	Date	Total	Max Depth on Ground	Dote	ō	50 or Mc	1.00 or M
ISLAND OF KAJAI										П			П											-	
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A	74.6	55.6	65.1			28+		27.		0	0	0	0	1.75 1.72 2.16 5.30 3.34	-	•37	•31 1•74 •55	14	.0	00000		6	0	0
KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WALLUA OITCH 1051 PH WALNUHA 1115	AR	84.7 88.1	73.2 69.3	79.0 78.7	• 9	8 5 9 2			26 28		0 5	0	0 0	0	3.91 1.55 1.55	-	.47 .52 .67	.30 .65	14	.0	00000		6 5	0 1 3	0 0 0
PUEHU RIDGE 1040 MAHIAMA 930 MAIAMI LOMER 1054 MAIMEA 947	Α	83.1	68.0	75.6		85	29+	5+	13		0	0	0	0	5.82 2.02 8.65 .86		.31	3.10 2.39 .36	14	• 0	0000		18 2	3 4 0	2 0 1 0
ISLANO				75.8											3.43					.0				ı	
* * * 15LANO OF DAHU																									
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEONE MAJKA 781 KOOLAV OAM 833	R	90.2 8~.0	74.5 71.7	82.4 97.9			24+	69	26+		23		0	0	*43 *42 ** **91 7*58		.57 1.10 1.34	.17 .09	16	.0	0		2 0 12 17	0 0 3 6	0
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 DPAEULA 870 PALOLO VALLEY 718		81.8	73.5	77.7	2.1		25+		14		0	0			2.99 1.75 4.80 2.10 9.40	-	1.0- 3.73 .34 .97	2.30 .58 .72 .45	2 16 6	.0	0		6 16	2 2 0 3	0
PRI AAHIAAA 820.2 PUNALUU 884 MAHIAAA DAM 863 AAIAHOLE 837 MAIALUA 847	A A	87.34 87.5	67.51	77.4M	•8	93	25+		26		2				1.27 4 1.30 7.67	-	2+12	.41 1.21 .42	1 4 2 5	.0	0		4	0 0	0 1 0 0
WAIKIKI 717.2 WAIPAHU 750	A	89.7	71.8	80.8		93	4	68	27+		16	0	0	0	1.58		.95	.95		.0			3		0
ISLAND				78.4											3.11					.0					
15LANO OF MOLOKAI																									
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	A	84.6	71.3	78.0		86	26+	55	26+		0	0	0	õ	.84 1.94 3.75	-	.06 .66 2.64	.35	15 21 26 6	•0	0		8	0 3 0	0 0 2 0
ISLAND				78.0											1.68					• 2					
15LANO OF LANAI														u											
LANAI CITY 672 ISLAND		79.9	65.4	72.7	1.2	83	20	62	3		0	0	Ü	0	4.05 4.05		1.78	1.55	15	.0			5	3	2
* * * ISLAND OF MAJ1														l											
HALEAKALA B E S 434 HALEAKALA RS 338 HANA AIRPORT HONOKOHUA 493 KAHULUI MB AP	A A R	65.5 86.1 86.7	46.3 71.1 68.6	56.0 78.6 77.7	7	8.8	11 8 8 •	66	27 25 . 26		0 0	0	0	0	•08	:	1.60 .60 .17	.57 .95 .16	8 15 5 29 22•		0 0		1 12 5 0	0 1 2 0 0	0 0
KALLUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	А	73.8 89.2	58.4 70.8	66.1	4	76	3 18 • 3 11 • 3 29	56	26 + 26 +		0 11	0	0	0	4.50 5.30 4.27 3.55 .41	:	3.00 6.93 2.58 1.58	.82 1.52 .25	1 4	.0	0		12 12 5 2	3 2 0	0 2 0
PAIA 406 nAILURU 392		88.0	69.0	78.5	.7	89	27+	65	25		0	0	0	0	•27 •15	-	1.01		21	.0			0	0	0
ISLAND				73.0											2.18					•0					

CONTINUED

				Теп	npero	lure											Preci	pitation					
											No. a	Day	s					Sno	w, Sleet		N	o. of	Days
Station	. ε			re					Doys	М	ox.	М	in.		re	Day			Depth		More	ore	More
	Average	Averoge Minimum	Average	Departure From Normal	Highest	Date	Lowest	Dote	Degree	90° or Above	32° or Balow	32° or Balow	0° or Balow	Totol	Deporture From Normol	Greotest	Dote	Totol	Mox. De	Dote	.10 or M	.50 or More	1.00 ar /
ISLANO OF HAWAII																							
HAINA 214 HAWAII VOLCNS NP HO 54 HILO WB AIRPORT R HUEHUE 92A A	85.6 72.4 84.7	67.6 55.5 69.2	76.6 64.0 77.0	2 • 1 • 7 1 • 5	88 76 86	29+	65 50 67	4		0 0 0	0	0 0	0	•5I 2•34 6•78 2•13	- 1.78 - 2.75 - I.72 - 1.10	.12 .89 1.18	10	• 0 • 0 • 0	0		1 6 16	0 1 3	0 0 1
KAINALIU 738	81.1	63.6	72.4		84			30+		0		0		6.92	68	2.91		•0	1		10	3	2
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1 A KONA AIRPORT 68.3	76.9 85.3 81.4	60.3 66.7 65.1	68.6 76.0 73.3	1.1	88 84	25+ 25+ 7		26+		0 0 0	0	0	0	.15 5.84 6.57 I.42 2.18	- 3.21	.10 1.10 1.96	7 24	.0 .0 .0			1 18 10	0 3 5 0 2	0 I 2 0
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107 A	66.0M 89.8 82.4		57.5M 81.4 73.4	· •3	71 96 85	6 2 22+	41 68 61	27 I		0 15 0	0	0	0	.48 3.42 .74 3.33	~ 2·31 •80	•12	12 10 17	•0 •0 •0	0 0 0		2 8 2 6	0 2 0 2 0	0 0 0 1
PUAKO 95A PUU wAAwaa 94.1 UMIKOA 118 WAIAKEA SCO 88.2														.41 3.56 1.19 6.45	1.23 97	.25 2.00 .42	16	•0 •0 •0	0 0 0		1 5 4	0	0 I 0
ISLAND			72.6											2.90				•0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 96° ON THE 2D AT MAUNA KEA BEACH, HAWAII

LOWEST TEMPERATURE: 32° ON THE 29TH AT HALEAKALA SUMMIT 338.4, MAUI

GREATEST TOTAL PRECIPITATION: 30,30 INCHES AT LUPI UPPER 442, MAUI

LEAST TOTAL PRECIPITATION: .00 INCH AT 2 STATIONS, MAUI

GREATEST ONE-DAY PRECIPITATION. 4,08 INCHES ON THE 16TH AT PALOLO VALLEY 718, OAHU

т																														SEPTE		1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M		16	17	18	19	20	01	00	00	04	05	00	07	00	20	00	01
ISLANO OF KAUAI					1	0	0	,	0	3	10	11	12	15	1.1	13	10	17	10	15	20	21	22	23	24	25	26	27	28	29	30	31
BRYOESWOOD STA 985 A EAST LAWAI 934 A ELEELE 927 A	1.76 3.31 3.39 1.52 2.83	.02		* * * * * * * * * * * * * * * * * * * *		.90 .99 .34 .61	.01 .06 .16	.01 .04 .20 .02	.10 .16 .14 .03		*	•16 •73 •83 •60 •25	.02 .04	Ť	•22 •23 •18 •04 •22	.02 .24 .47 .09	:	*	.08 .04 .01	•15 •15 •02	.12 .05 .16 .04	.04 .05 .15	.02 .04 .11 .02		*	.13 .25 .22 .02	.03	.03	*12 *10 T	.01 .07 .02		
HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 A	5.58 1.03 8.85 8.32 4.45	.04	.70	40	.20	.75 .30 .67 2.23 1.25	•27 •17 •65 •	•11 •22 •	.58 1.65 .13	.64	. 36	.93 .09 .72 .58	.08		.36 .56 1.30 1.64	1.73 :34 .31	.20	* 12	.31 .15	.15 .30 .14	•21 •35 •	.13 .27	.06 .40 .62	.28	.06	.04 .26	.08	.02		.I1 1.06 .04	.12	
KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A	1.72 4.24 2.16 1.57	.05	.16	•07	:	.31 1.16 1.45 .80	.20 .10 .07	•06 •12	.18 .35 .10	.05	:	.43 .05 .10	•03		•22 •30 •05 •05 •17	.18 .47 .08 .11	.03	.05	.02	•11	.06 .07 .06	.06 .05 .03	.19 .13 .06			.30 .40	.08	•05	.15	.05 .03	.04	
KILAUEA FIELD 17 1135 A KILAUEA POINT 1133 KOLO 1033	3.31 5.30 3.34 .69 3.91	.29	. 37	.11	* * *31	.81 1.29 .28 .32 .73	.50 .12 .08	.06 .12 .26	•14 •07 •26	.17	:	.49 .50 .01	.01 .06 .03		.50 1.74 .01	.05 .30	:	:	.06 .11 .07 .06	.09 .02 .13	.07 .14 .06	.11 .08 .25	.13	:	:	•21 •60	•02	.01	.01	.04	.09	
KOLOKO RES 1137 A KUKU1ULA 935 A LIHUE VARIETY STA	5.45 4.80 1.76 e 2.58	.05 .05	:	.71	:	.89 1.59 .41 .77	.46 .25 .06 .14	.09 .07 .03	•18 •13 •10 •22 •06	.42		.82 .30 .31 .02	.02 .03	.05 .10	.48 1.05 .03 .62	I.01 .21 .42 .59	*	:	.19 .25 .02 .11	.11 .10 .06 .07	.25 .07 .12 .12	.16 .12 .06 .05	.21 .06 .06 .33	* * •	.03	•17 •42 •03	•01	.01	T •01	.16 .07 .05 .04		
MAKAHUENA POINT MAKAWELI 965 A MANA 1026	1.56 1.07 .72 1.66 1.84	•13 •01	.21 .02 .10	.04	.30 .07 .15	.06	•11	T •53	.09 .01 .26	.15		Ť	•01	T .13	•24 •05 •65	.02 .40		.35	.08	.03 .04 .01	.12	.06	T .04 .02	.03		.04	.17 .13	.01	T •01	T .02 .07	.02 .02 .04	
MOLOAA 1145 A NIU RIDGE 1035 N WALLUA OITCH 1051 PH WAINIHA 1115	1.54 5.10 5.87 4.47	•01	.25	.28	.04	.18	.05 .09 1.15 .08	.03 .21 .02	.05 .36 .57	.70	. 30	.07 1.03 T	.26	.02	.01 2.83 1.24 2.15 1.19	.01 1.19 .41 .06	.22	.01	.02 .31	.02 .38 .10	.07 .14 .04	.01 .22 .13	.01 .53 .17	* • 33 • 31	• 01	.19 .57	.06 .04 .41		•02	•05	e T	
PUEHU RIOGE 1040 PUHI 1013 A RESERVOIR 6 1004 A MAHIAWA 930 A	5.82 4.05 5.32 2.02 11.75	.02 .11 T	:	:	:	1.24 .76 .81 .92	•37 •23 •16 T	.06 .08 .05	.07 .07 .13	:	:	•53 •74 •47	.07	.18 .18		.08 1.00 1.10 .08	.83		.30 .31 T	.20 .13 .04	.16 .23 .02	• 15 • 15 • 02	.10 .07 T			.10 .01 .08 .01	•09		.01 .11	Ť	* * 1.75	
WAIAHI UPPER 1052 WAIAWA 943	8.65 8.06 .73 2.28 .86	.15 .03	.44 .55	.36 .25	*17 *21	.71 .21 .11 1.14	•32 •89 •30 •05	.21	•32 •45	.49 .90	.08 .10	•31	.07	.02	2.39 1.52 .09 .17	.69 .57 .06	.57 .25	.08	.08 .17	.21 .38	.10	•15 •16	.27 .37	.40 .35	.08	.03	.01 .02			.05	.20	
	1.92	•02	•			.54	.05	•06	.15	•	٠	.46	•02		•14	.10	٠		.02	.15	.07	.02	.06			.04			.02	T		
ISLANO DE OAHU																																
BEHETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE	1.93 .91 .97 3.59 5.33		.01 T	•	.08	*17 *11 2*13 *04	.02 .02	.01	.15 .04 .02 .23	.07 .05 .02	.03	*06 T	T .01	.13 T	•12 •10 •36 •21	.71 T .01 .20	.02 .03	.05	.04 .03	.02 .02 .04	.09	.02 .04	.15 .01 .06 .02	•	•	.10 .58	.01 .26 .05	.08	.12	•16 •02 •06	.02 .03 .17	
	.02 3.82 1.43 .43	:	• • • • • • • • • • • • • • • • • • • •	.03	:	.19	7 •95 8	.06 T	T * T	•01	:	* 47 *	* *	.05	.57 .08	: T	.02	T * *O2	.59	* * T	T * .09 .01	.35	* *	*	:	7 •71 •56	.01 	* * •17	*12	T	.54 T	
KAHANA 883 A 1 KAHUKU 912	.63 1.00 13.59		T .	.01 * T	* •	.13 .07 2.28 .78	• 02 • 24 • 12	**************************************	.01 .10 .23	.04 .13 	**************************************	7 2.36 .15	.01	•13 •08 •01	•15 •08 • •12 •71	T . 71 . 81	.05 .02	.04 # .05	6.20 .01 T	.01 .05	.01 .06	.01 .01 .08	.04			1.84	*°1 *	.07 .05	.07 .16	.03	.01 .04 .91	
KANEOHE MAUKA 781 KANEOHE RANCH 838 A	5.36 4.91 4.28 2.12		.01	.03	:	.74 .27 .01 .20	.34 .22 .17	.01 .30	.17 *	.03	:	.02 .16 .26	.06 .07	.76 .06	* •57 •68 •22 •20	.40 .40	1.15 1.20	.05	.04 .05 .06	2.96 .I1	.02 .16 .16	.04	.12 .07	.02 T	.03	• •11 •65 •40	.46 .12 .15	.22	.04 .03 .10	.30	.10 .23 .06	
KEMOO CAMP 8 855 A KOOLAU OAM 833	3.25 .44 7.58 2.99 1.85		. 36	.02		* •02 •52	.07 .04 .03	* •05	.43 T	.01	.03		.32	• 05	.04 .23 2.30	.20 .71	.06		.10	* .07 .01	.02 .14 .01	.09	1.09	1.03	. 1	• 03 •28 •42	•26 T	.14	.01 .21	* 10 T 1.85	3.25 .01 .65	
LUNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUU POINT 724	3.01 1.63 1.20 1.75 2.96		•22	•	•05	.08	T	* T	•11 •12 •31	.05	•05		• 02	.05	1.42 .95	.40 .17 .19	.18	.01	.03	.09		e T .27	.20	•06	.04	• 35 T	.06 .10	.04	•02 •36	.09	.04	
MANDA TUNNEL 2 716 MDANALUA 770 NUUANU RES 4 763 NUUANU RESERVOIR 5 775 A	8.56 1.03 4.80 3.38 2.10		.16	.02		1.02	.08 .06 .08 .14	.01	.56 .26 .34	.52 .25 .30	.06	.12	•02 •02 •02	.30 .32 .09	.12 .05 .16 .25	.18 .54 .09	2.18 .07 .72		.62 .01 .34	.14 .08 .40 .02	.08 .06 .15	.20 .08 .10 .04	.48 .08 .10 .30	.04 .10 .02	.12	.10 .20 .18	.16 .02 .12 .05	.01 .07	.18 .02 .12 .12		.26 .10 .08 .15	
PALOLO VALLEY 718 PAUOA FLATS 784 PORTLOCK ROAO 724.4	9.40 9.18 2.95 1.27	.12 .26	•12 •40		.02 .10	.58 .58 .11 .06	.02 .06	.02	.46 .82 .04 .02	•18 •78	.02	.04 .04	•16 •10	.34	*10 *14 *36 *07	.34 .66 .03 .41	4.08 1.32 1.56	•02	.94 .46 .02	.14 .20		.04 .20 T	.20 .24 .18 .05	.04 .16	.02	•16 •08 •30 •16 •32	.12 .30 .03	.02 .02	.40 .14 .02		.32	
PUNCHBOWL CFATER 709 A ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713 A	1.02 6.00 5.01 1.45 1.30	.01	.02	. I 5	*12	.09 .37 .37 .04	.09 .03 .25 .02		.07	•10 •11 •70	.01	.02	.03	.09 T .16	.02 .83 .20 .03	.58 .07 T	.07 1.89 .34	.05	.08 .50	.02 .09 .09	.02 .07 .10 .04	.03 .05 .13	.06 .07 .06 .06	.01 .30	.18	•55	.02 .17 .03	.04 .02 .49 .02		.06 .37	.03 .24 .35	4
WAIAHOLE 837 A WAIALAE KAHALA 715 WAIALUA 847 A WAIANAE 798	7.67 2.50 .30 .70 2.10		.07	.08	* T	.02	.65 T .12 .03	.08	.60 .21 T	.05 .02	T .	*22	.07	.06 .10	.65 .10 T	.14 T .09	.59 .52	.12	1.98 T	.64	.08	.08 T	.22	# T	• 05	.50	•13	.07 .02 .04	.02 .01 T	.04	.05	•
WALAWA 836 A WALKANE 885 A WALKIKI 717.2 WALLUPE RESERVOIR 170 A	7.22 8.06 1.58 3.23 3.20		.06	.03	:	1.96 .12	:	•	1.65	* * *15 *	*	1+16	•	:11	• •08 •75 •26	2.53	.95 .01	.07 .07	3.18	.03	•	.77	.94	.08		* 1.20 *	* * T	.02	.37	•	.56 .03 .05	•
WAIMEA 892 A WAIPAHU 750 A	2.59 .13 2.20		• 02	•		.16	.47 .01 .02	•12	.08 .07 .20	.10	٠	.35	.02	.32		•72	.86			.01 T .02	•12 •02 •04	T	.29 .01 .02	•	•	.10	•02	.03	.06 .02 .14	*12 T	.08	•

See Reference Notes Following Station Index

Continued											لسجم																				HAWA I	I MBER	1967
Station		Total														of M		10	177	10	10	00	01	00	23	24	25	26	27	28	29	30	31
–			1	2	3	4	5 .	6	7 .	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	23	20	21	20	23	30	21
ISLAND OF HOLONAS																																	
KALAUPAPA 563 KAUNAKAKAI 536	А	.06					.08	Т								.05	Т				Т			.01			.20			T			
KEONELELE PENS 551 KUALAPUU 534 MAPULEHU 542	A	1.08 .84 1.94	.15	.05		•17	.02	.04 .04	.03	.05	.08				.10	.02	.52		.06		.03	.18	.01 .35	.12	.07	.04	.06	.13	.04	.07	.15	.06	
MAUNALOA 511 MOLOKAI AP 524 PUUOHOKU RANCH 542.1 WAIKOLU 540	A	3.75 .17 1.61 1.74					•20 •17	1.17 .08 .12		•12			.54	•22		•96	.08 T		Т	.24	.01			.05	•	•	*10 T *08 *37	1.43	.15			•04	
1SLANO OF LANAI																																	
		1.77							т								1.44						.07							.26		т	
KANEPUU 690 RAUMALAPAU HARBOR 658 LANAI CITY 672 LANAIHALE 684 MAHANA 694	A	1.17 4.05 6.00 1.03			:	:	.12	.31 .52	.58	*		:	*	•30 •	T •	.51	T 1.55	T a		T *	T *	:	4.57	.01	.01	T N	.03 .32	• 04		.65	* 02 *	.01 .20 1.03	
HALAUEA 676 mAIAKEAKUA 685	A	2.60	:	:	:	:	• 02	٠	•03	*		٠	*	:		.88	1.46			• 05	٠			:	:	:	.45	*	:	1.01	:	.10 .08	
* * * ISLAND OF MAUL																																	
AUWAH1-252	Δ	.25																		•25													
HALEAKALA B E 5 434  HALEAKALA HANCH 432  HALEAKALA R5 338  HALEAKALA SUMMIT 338.4	A	.70 .41 1.32 .73	*	.04 .19		•	* T • 02	.02 .07 .09	٠	•23 •03 •13 •20	.04 * T	٠	٠	*   T	* T	*15 *06	.06 .31 .57	.07	T	.02		Ť	.07	.06 .03	.03	T	.04		.01	.01 T	.03 T	.04	
HALIIMAILE 423 HAMAKUAPOKO 485		3.40		.02				т		.04	.04	.04		.01		•02	•21			.10	.08	.02	•04	.06	.01 .13	٠	.05		10 T	.15	.14	•90 •23	
HANA 354 HANA AIRPORT HANAHULI 281		3.96 4.57 6.74	т	.50 .46		т	.35 .95	.25 .46 1.10	.14	.48 .30 .57	.01 .30	.06 .05	.02	. 0 1 T	.18 .18	.02 .16	.27 T	.09 T	•39 T	.05 .50	.01	.04 .06 T	+21 +18 2+10	.06	• •40 •71	.26 .12	.01 T	•34	.02	.10	.04 .06 .27	.07	
HOLUA CABIN 259.5 HONOKOMAU 480	A	.51 3.90	:	•19	:	:		:	:		.32	:	:	:					:	:	:		:	:	:	:	:		: '		3,90		
HONOKOHUA 493 HONOMANU GULCH 341	A	1.08		*			.02	.04	.02	.07			*09	.05			•12	*		•02	.11	.02	.12	.04	:	:	• 02		.02	.10	.16	3.00	
KAHOMA INTAKE 374 KAHULUI WB AP	R	2.80	T	т т		•	•		•	•35 T	T	T	•		•	•01	1.90	•	•	•	ľ	•	.03	.03	T		•	•	1	.01	Т	т	
KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAHUA 410	А	1.65 4.50 1.89 .27	.02	* -21	.02		•06 •13	.34 .01	.06	.78	.12	.13	.06	.08		*13 *	* *15	•		.68 1.62	» • 04		.05	.38	.37	.04	.06		.02		.40	1.65 .18	
KEANAE 346 KEAWAKAPU BEACH 260.2	А	5.30	٠	*	٠	٠	.08		٠	٠		٠	*		٠		•	٠		*	٠	*		٠	• 03	.07	*	٠	*		•	5,30	
KIHEI 311 41PAHULU 258 KULA HEIGHT5 323.2		T 4+27					.21	.61	٠08	.82	.05	.14			.16	•05 •05	•21 •23	.11		+40	. 35	•22	+16					.60	.03		.07		
KULA SANATORIUM 267		3.55				.31	•02	.08		•02				.02	1.04	1.52	.23	т	т							.01	.19	.08	.03			.02	
LAMAINA 361 LAUNIUPCKO INTAKE 376 LAUNIUPOKO VILLAGE 372	A	2.20 .77	٠	*	٠	٠	•	٠	٠	٠	٠	٠	٠	•02	*	•25 •63	.14	٠	٠	٠			•	٠		*	٠	•	•		*	2.20	
LUPI UPPER 442	Α,	30.30	*	٠	*			•	•	•	٠	*	*	*	*	*	•	*	•	•	*	*	•	•	٠	•	*	•	*	*	*	30.30	
HAHINAHINA 466 NAKALELE -FLO 60-497 OLINDA 332	A .	1.71	T				.04	.06	Т	•10 •12		٠	.70			•17	.18			.01	.01	t	•06	.02			•64	e T	.03	.25 n	e T	.12	
OLUMALU 296 OLUMALU GULCH 377	4	.00		*	٠	٠			٠	•			٠		٠	•					٠				*		*					.80	
PAAKEA 350 PAIA 406		7.49		.50		.01	.12	.61	.04	.88	.78 T	.49	.10	•06	•25	.30	.01			.36	. 46 T	•07	.46	.35	.50 .05	•06			*17 T	.31	• 32	.27	
PAhilEihulu 259.2 PAUWELA 490 POHAKFA BRIOGE 307.2	A	1.67	٠	٠	я	•	•	•	•	• 32	:	:	• 21	.03	•33	•03	•		:	•42	•	.08	.04	.09	:	:	•50	•	.02	.32	•06	:	
POLIPOLI SPHINGS 267.2	A	3.86					*	1.27		:					.15	8						1.97							.47				
PUDHOKAMDA 2 343 PUD KUKU1 HAKAI 472 PUDHENE 396	A	.80 .01	:	:					:	*	:	:	*			:	.01	•	:	*	*		:	:		:		•		.80	:	4.52	
SPRECKELSVILLE 400.2 TWIN GATES 261.3	А	1.70																					.04		.01	. )	1.43	•27		.03	.01	T	
UKULELE 333 UKUMEHAME 301	A	2.10	•	٠	•	•	٠	٠		•	٠	*	٠	•	*		•		•			:					•	•	•	i		2.10	
ULUPALAKUA KANCH 250 WAHIKULI 364	А	2.19					.08	.32		.05				.41	.63	•10 •18	.82										-18	•66	•02				
WATEHU CAMP 484 WATHEE VALLEY 482 WATKAMOT 449	A	.68 4.90			.10			.02												.20			.10	.05	.07						. 15		
WAIKAHOI OAM 336 WAIKAPU 390	A	4.04		*			.33	.64	.01	1.18	•		•		•	•25	-14	:		•29	.03		.26	.30			.21	.01	.05	.05	.26	4.90	
MAILUKU 392 MAIOPAI RANCH 256	A	•15 •69		•05												•03	•12			.02 .57			.02		т					.01	.02		
ISLAND OF HAWAII																	***	•	•	• > 1													
AHUA UMI 75 AHINI 182.1 EAST HONDKANE 1838	A A	2.72 3.06 4.24	.02				•	•02	.09	.19	:	:	.83	.04	•03	.01	.35	:	:	.49	.06	.03	• 42			:	.09	•	.15	• 12	•09	2.72	
HAINA 214 HAKALAU 142		.51 4.89	.04				.02		.08	.04	1.18	.04	•10	.09	.01	-		.09	•	.44	.01	.12	•01	.06	.25	•	•	•	. 32	.01	4.24	•	
HALEMAUMAU 52 HALEPIULA 117	A	.69 .20		:					:	:	:	:	:	: 1	:	:			:				. /									.89	
HALEPOHAKU 111 HAMAII VOLCNS NP HQ 54	А	2.34						.04	.04	•36 •11	.07	.89	•05	.16			*04		.04	.07	.05	* T	.07	e T	:	:	.20	•	.02	.02	т	•20	
HAWI 168 HILO WB AIRPORT	A   R	1.30	.01	т	T		.10	.70	.01	.68	1.18	• 17	•12	•02	.46	T	.74		.30	.10	.02	.08	.08	.01	.07	.07		.07	.17	.15	•03	.46	
HOLUALCA 70 HOLUALOA BEACH 68 HONAUNAU 27	A	3.37	٠	*		* 0.7	٠	• 09	*	•	*	٠	•	.33	٠	•12	•	.14	•	•		•	1.72	•	•	•	٠	1.06	•		6.40	*	
HONOHINA 137		5.60	.04	•02	.02	.97	•02		1.40	•02	.06	.29	•10 •16	•65	.03	•11	•08	•05	.09	.02	•22	.01	.29	.04	•02 •13	.51	.08	.04	.03	.04 .22	.02 .20	.05	
HONOKANE 181.1 HONOHU MAUKA 138 HONUAULA 71	A	5.26 8.74 3.00	.05			:	.03	.28	2.18	•21 •55	.68	.96	1.19 .50	.05	•02	•16 •92	2.53		.01	1.05	.20	.02	.58	.05	.01				.07	.08	.14	.06	
HUALALAI 72 HUEHUE 92A	A	1.75	0				:				*		:		:	:						:	1.90		:					1.75	3.00 *		
KAALA IKI 12 KAAWALOA 29	A	3.03 6.30	•02				•11 •35	•17 •03	.09	•15 1•02		•06	T . 18	• 32	.62	•03 •52	.08		. 1/8		.15	т	.44	.08		.14	.40 2.25	.58	T				
KAINALIU 138 KALAPANA NO 1 67+8 KAMASA NO 2 5	Α.	6.92 2.19	.02	•42	.12	.01	.03	.03		1.33		.59	.20	.32	.03	*57 •49	.01		*09 T	.33		Т	.12	.31 T	T	2.91	.13	.03	'	.12		.18	
	-	2.02									• >1			1	٠			•	•	•		•	•	•	1 • 27	•	•	•	•	•	*	•24	

See Reference Notes Following Station Index

Continued										_																					HAWA1 SEPTE		1967
Station	П	Total													Day	of M	onth																
	-		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIRPORT KAPAPALA RANCH 36 KAPOHO LANDING 935 KAUMANA 88.1	A	.25 .15 2.19 6.97 5.83	*	1.98		* *20	.10	.04 † .06		.03 .16 1.25 .33	.30	*06 *01 *	• 02 • •18	. 23	.33	.09 .10 .23	T .08 1.07	.02 .08 *	T • •	•07 •	.03	.01 T .01	. 12	1.60	.03		• Z B	T .44	T •03		1.07		
KEAAU 92 KEALAKEKUA 26.2 KEHENA 181.2	A A A	7.84 5.84 6.57 2.75 1.42	.58 .05 .03	• 05	.30	:	.06	.22 .05	1.10	1.58 .45 1.25	.39	.43 .02	• 12 • 06 • • 42	.13 .51	.16 .57	•20 •36 •	4.88 .01 .02	*61	.13 .04 .04	•58 •20 •05	.29 .03	* •02 *	•28 •51 •	.38 .10 .12	* •05	.03 1.96	* •04	.05	.07 .01		.17		
K1PA 89.2 KOHALA 179A	AAAA	4.78 8.75 1.41 2.39 1.52	.01 .01 .09	٠	•	.28	•	.66 .03	† 1.22 T	.88 .01 .03	.30	1.45 ************************************	*24 *19 *49 T	.75 .01 .01	.07	.64	.39 .65	* 20 * T	•	.72 .25 .23	.33 .05 .07	.02	.29 .04 .23		* •14 * •02	.03	.29	٠	*07 *41 *17 *45	.16 .02	.03 .04 .03	4.78 .13	
KOIAWE LOWER 196 KONA AIRPORT 68.3 KUKAIAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 206	A	3.04 2.18 1.13 .48 .50	•27 •02	•	T	•	٠	Ť	.37 .03	•34 •13 •01 •02		• 30 •10	.09	.18 .03 .12	.14	•65 •02	2.00 .10	* T	* T	.01 .05 .07	.04	*	.01 .07 .09	.13	т	.73	•	• •42	.04	.06	• 3 0 T	•	
KULANI SCHOOL SITE 78 LANIHAU 68 C	A A	3.42 .48 3.74 3.59 3.72	.72		.40		• •12 •12	•30 • • •22 •35	.22	.05 .03 .73	.45 .05	• 95	•02 •26 •32	1.00	.07	.05 .40 .10	.26 .97	* 85	*21	.15 *	• 04		.30 .10	1.81	•02	.05	•	* •07 •27	.10 T	*	.20 .40	.08	
	A	.74 1.33 2.00	.25	:	-	•02 •20 •	.08	.08	-	:	-	-	·°1	.16	.21 .10	.04 .02 .64	1.10	.29	.37 -	-	.01	:	:	-	:	•45	-	•01 -	:	-	:		
NAPOOPOO 28 NAULU FOREST 38.6	A	7.39 1.40 6.77 1.89 1.24	.05 .01		*	.38 1.87	•13	.23 .02 .02	.83 T	.61 T	*77	.86 .10 .61	.24 T .90 .14	.04	*15 *14 * T	.97 .13	•02 • •07 •16	.23 * .46	.05 * T	.22 .23 1.91 .11 .25	.47 .05 .04	.06 T	.33 .04 .15		.03	.02	.14 2.09	*39	.17 .04	.19 T	•23	.20	
OOKALA 223 OPINIHALE 2 24.1 ORCHIO LANO EST 91.5 PAAUHAU 217 PAAUILO 221	A	2.12 11.16 7.96 .50 .76		*77	.01	* .01	.02	.07 .72		•19 •65 1•27 •16 •15	.12 .05	.04 .04 .04	2.94	.04 .17 .09	1.81	•07	.05 1.78	T • 05	*10 *	.06 .03 *	* 13 *	*31	.09 1.41 .05		.03 1.39	.04	*02	*02	.03		.01 1.03		
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140.1	A	3.33 5.89 6.00 6.17 8.41	.07	٠	•	.02		.07 .09 .05	.21 * 1.65 1.78	.20 .21 .48 .69	.50 .60 .87	.57 .48 1.34	.16 .27	.09 .40 .40	1.53 .39 .07	•23 •04 • •58 •62	.04	.06 .57 .04	.22 .12  T	.55 .41 .46	.02 .23 .20	•03	•24 • •26 •24		.05 .12 .10		•22 • •06	.72 .25	.05	.09 .03		.22 6.00 .02 .05	
POHAKULOA 107 PUAKO 95A	A	4.44 10.20 .59 .41 .23	.07				.02	.15	.82	.51 .23 .06	.46	.28	*10	.02	.09	.01	• 36	:11	.04	.36	.01		.12	*12	•0B		:	.25		.19	.39	.01	
PUU LAAU 102+1 PUU LEHUA 73	AAA	1.74 2.26 .86 .8	•		.03	* * * * * * * * * * * * * * * * * * * *	.01	• • • • • • • • • • • • • • • • • • • •	* * * * * * * * * * * * * * * * * * * *	.40	* * * * * * * * * * * * * * * * * * * *	* * * * * 52	* * •33 •20	.05	.63	***************************************	* * •23 •07	* * * * * * * * * * * * * * * * * * * *	.05	.09	• • • • • • • • • • • • • • • • • • • •	* * *01 *01	* * •21 •04	.03		:	* * *12 *05	*	.06	.02		1.74	
	A	3.56 8.29 1.30 1.19 1.40	•	1.10	.08	•	:	.28	T * *	1.73	.09	.02 .05	.04 s	.43	T • •	*16	T 3.50 .42 1.02	2.00 * .28 .07	.05	• 16	* • •01	• • 05	• 03	.01	• 33	.34	•02	•07	.09	:	•34 • •07 •03	.60 .01	
WAIAKEA SCO 88.2		6.45				•10		.32	.43	.34		2.10	•42	.13	.10	•64		٠	.32	.76	.18				•30				.02	.04	•15	.10	

### SUPPLEMENTAL DATA

		(	Wi Speed -	nd m.p.h.	.)		Relati	ve hum	idity ave	rages -		Num	ber of d	ays with	precip	itation			Inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 Am	OTH MER	IDIAN T	IME 8 PM	Trace	.01–.09	.10–.49	5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WR AIRPORT	23	1.3	6 . 2	19	NE	20	80	75	68	82	4	7	13	2	1	0	27	48	6.3
HONOLULU, OAHU, WR AIRPORT	6	10.0	11.1	27	NE	09	73	66	50	65	8	11	0	0	0	0	19	65	5 • 6
KAHULUI» MAUI, WB AIRPORT	4	10.2	11.9	29	NE	09	86	80	59	78	8	4	0	0	0	0	12	85	4 . 8
LIHUE, KAUAI, WB AIRPORT	6	10.4	11.9	25	NE	80	86	82	69	81	8	8	6	0	0	0	22	76	6.9

# DAILY TEMPERATURES

ILAUEA POINT 1133  IMUE WB AIRPORT  AKAHUENA POINT  ANA 1026  IU RIOGE 1035  AIAHI LOWER 1054	MAX MIN MAX MIN MAX MIN MAX MIN	777 61 89 72 85 75	77 61 87 74	3 75 54	78 60	72 59	6	7	8	9	10	II	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31	Average
ISLANO OF KAUAI  ANALOMULUMULU 1075  ILAUEA POINT 1133  IMUE WB AIRPORT  ANA 1026  IU RIOGE 1035  AIAMI LOWER 1054	MIN MAX MIN MAX MIN MAX MIN	61 89 72 85	61 87	54				76																								
ILAUEA POINT 1133  IMUE WB AIRPORT  AKAHUENA POINT  ANA 1026  IU RIOGE 1035  AIAH1 LOWER 1054	MIN MAX MIN MAX MIN MAX MIN	61 89 72 85	61 87	54				76																								
ILAUEA POINT 1133  IMUE WB AIRPORT  MANA 1026  IU RIOGE 1035  Alah1 LOWER 1054  MANA 1026  MANA 102	MAX MIN MAX MIN MAX MIN	89 72 85	87		60	59			74	74	72	77	73	72	72	72	74	74	77	75	73	75	77	76	73	71	73	76	78	74 55	75	74
IMUE WB AIRPORT  AKAHUENA POINT  ANA 1026  IU RIOGE 1035  AIAHI LOHER 1054	MAX MIN MAX MIN	85	74		87	85	61 85	59 86	59 83	58 85	85	52 86	88	55 87	52 87	56 87	53 85	53 85	89	59 88	86	86	59 87	57 88	89	50 89	87	89	52 89	89	58 86	86
AKAHUENA POINT  ANA 1026  IU RIOGE 1035  ALIAH1 LOWER 1054  BENEROLD OF DAHU  WA PLANTATION 741  MONOLULU WBAP 703  MONOLULU SUBSTA 704  AHUKU 912  ANEOHE MAUKA 781  MAAAPUU POINT 724  MAAAPULA 870	MAX MIN MAX	75	84	72 85	73	73 83	73 85	74 85	73 84	72 85	76	76 86	85	72 85	74 85	76. 84	76 85	76 84	76 85	75 85	75 85	75 85	75 85	75 85	76 85	73 85	69 85	76 85	76 85	74 85	74 85	84
ANA 1026  JU RIOGE 1035  Alam1 LOWER 1054  B B B B B B B B B B B B B B B B B B B	MAX	87	72 88	73 88	72 89	74 90	74 88	75 87	74 88	76 87	76 87	76 87	88	88	70 90	70 89	76	72 89	88	87	73 87	87	76	73 89	72 88	70 89	89	89	76 88	76 88	75	88
ANAMAL PLANTATION 741  MANAMAL STATE ANAMAL	MIN	76 90	74 89	74 89	73	74	73	74 88	77 88	73	90	76 89	72 88	73 88	74 86	71 85	76 86	74 88	73 87	73	75 88	75 90	92	75 88	73 87	73 86	73 86	72 89	73 88	71 89	75 88	73
ALAMI LOWER 1054	MAX	70 85	70 83	69 85	72	72 84	73	68 90	68 85	68 85	71	90	87	70 92	84	70 82	70 84	70 86	91	71 89	70	67 89	70	67 91	90	69	69 82	85	66 87	88	70 88	86
A PLANTATION 741  MA PLANTATION	MIN	65 83	83	83	83	65 81	70	82	65 79	82	81	83	70	84	67 84	83	68 84	84	83	67 84	83	82	82	84	83	82		65 85	85	68 85	68 84	83
MA PLANTATION 741 MM  DONOLULU WBAP 703 MM  DONOLULU SUB5TA 704 MM  NHUKU 912 MM  ANEOHE MAUKA 781 MM  AKAPUU POINT 724 MM  PAEULA 870 MM	MIN :	69	70	67	67	70	69	69	70	67	70	69	69	64	65	67	70	66	68	68	69	69	69	69	66	70	68	66	67	66	66	61
MA PLANTATION 741 MM  DONOLULU WBAP 703 MM  DONOLULU SUB5TA 704 MM  NHUKU 912 MM  ANEOHE MAUKA 781 MM  AKAPUU POINT 724 MM  PAEULA 870 MM																																
DNOLULU WBAP 703 MM DNOLULU SUBSTA 704 MM ANUKU 912 MM ANEOHE MAUKA 781 MM AKAPUU POINT 724 MM DAEULA 870 MM	MAX	90	91	93	88	88	91	90	90	90	91	92	92	88	87	8.8	87	90	89	90	89	90	89	90	89	88	88	89	87	87	89	89
NNDLULU SUBSTA 704 MM  NHUKU 912 MM  NNEOHE MAUKA 781 MM  NKAPUU POINT 724 MM  PAEULA 870 MM	MIN	69	73 89	68	68	71	71	70	72	70	74	70	70	69	70 87	69 92	72	68	70	71 91	71	71	71	70	68	68	67 90	67 90	70	68 88	70	90
MINECHE MAUKA 781 MM  KAPUU POINT 724 MM  PAEULA 870 MM	MIN	76 85	76 84	72 86	72 86	74	77	77	76 85	75 85	78 85	76 85	75 85	73	72	73	77	73 85	74 85	77 85	75 84	76 84	76 86	75 84	72	73 87	72 84	69 84	75 84	74	75 84	84
NEONE MAUKA 781 M M NKAPUU POINT 724 M M PAEULA 870 M	MIN	76 85	76	76	75	74 87	76	77 85	74 85	75	78	77 85	74	71	70	72 85	73	73	74	76 86	76 86	76 85	76	76	75	75 86	74	75 86	74 85	76 86	76	74
KAPUU POINT 724 M.M.	MIN	75	84	84	85	69	73	75 85	73 86	83	84	73	76 85	70 85	69	70	84	83	73	73	75	74	70	85	86	70	69	73	77	74	80	8
AEULA 870 M	M1N MAX	70	70	72	71	71	72	72	74	74	73	75	72	71	69	69	71	72	71	73	73	74	73	72	73	70	69	70	72	72 81	72	7
	MIN	72	80 72	75	73	72	83 76	83 73	73	76	73	81 71	76	73	82 69	76	73	71	82 75	73	72	75	73	75	76	74	83 71	76	73	74	75	7
	MAX M1N	67	69	82 65	71	67	67	68	68	69	69	67	68	85 67	87 67	66	83 67	86 66	69	67	69	68	69	82 67	66	66	85 65	64	85 65	68	80 69	6
M	MIN	86 66	67	72	93 68	90 65	83 68	67	87 69	71	88 73	87 67	67	66	67	66	88 68	85 66	65	69	87 69	85 69	85 68	88 69	68	8.8 6.5	89 64	66	88 66	85 66		6
м	MIN	87 64	87 65	87 69	91 65	87 67	84 66	8 8 6 6	88 69	68	86 67	87 70	89 66	89 68	88 71	85 66	88 67	89 70	89 66	86 67	68	87 67	87 66	87 67	88 66	91 66	89 64	88 64	66	87 65	8 4 66	8
	MAX M1N	71	90 72	89 58	93 68	92 70	90 74	73	90 72	72	89 76	91 74	73	92 69	89 70	70	90 72	88 70	74	90 75	89 75	89 74	8 9 7 5	90 71	69	90 70	89 68	91 68	73	90 74	87 73	7
* * *																																
SLAND OF MOLOKAL													1																			
	MIN	85 73	85 71	85 71	86 68	65 68	84 72	84 72	84 72	83 72		84 74		85 71	84 71		85 72	84 72	86 73	86 74	85 73		84 72	84 73	85 73	84 68	86 68	84 69	85 72	85 71	83 70	7
SLAND OF LANA1										i																						
	MAX	80 66	80 64	82 62	8 Q 6 5	79 64	79 67	81 66	80 66	80 65	80 66	79 66	80 66	82 67	79 67	8 1 66	80 64	79 66	80 65	99 8 I	83 68	82 64	80 65	78 65	79 64	78 64	78 65	79 64	79 67	80 66	80 66	79 65
SLAND OF MAUI																																
	XAM NIM	69 54	67 48	67 45	69 44	68 46	66 47	66	63 49	64	65 47	74 48	66 43	65 42	63 48	62 45	62 48	66 50	69	65 45	65 51	67 49	66 49	67 48	63	64 41	64 47	66 40	64 42	62 44	65 51	65
	MAX	60 49	57 48	59 45	61 38	55 42	55 44	60 45	54 42	60 40	59 47	62 47	57 42	58 51	57 41		57 50			58 43	61 48	56 41	55 39	55 47	57	57 40	54 41	55 42	56 39	55 32	57 42	57
	MAX	86 70	87 69	86 71	86 68	88 72	85 73	86 71	88 73	87 72	86 77	86 77	85 72	86	86 72	85 72	85 71	87 70	8 6 7 2	86 70	87 71	86 73	86 73	86 70	86 72	85 66	86 67	87 70		87 68	84 71	86
	MAX	86 72	88 73	86 68	84	86 68	87 74	85 73	86 69	85 74	89 72	90 69	87 67	88	85 69	88 67	90 70	89 67	90 67	89	87 67	85	88 72	86 71	83	83 62		87	86 71	87 71	86	86
ILUA 446 M	MAX	82	81	8 2 6 7	81	81	82	81 68	81 68	80	81 70	81 70	81	83			82	82		81	81	82 67	82 68		82	82 64	82	81	82 68		79 68	81
JLA SANATORIUM 267 M	MAX MIN	75 57	75 58	75 57	74 58	73	70		75 60		76	76		73 58		69	74 62	72	72	75 58	74 58	74	74 58	75 59	75 57	73 57	72	73	74	75	71	73
AMAINA 361 M	MAX	91	89 73	89	92 71	90 73	88	91 69	91		90 73	9 I 7 1	89 70	88 70	88 71	85	87	87	89	88	89	91	91	89	89	88	56 87	88	58 89	57 93	88	89
Alluku 392 M		69	1.3				4.4	97	16					10	1 4	04	72	70	70	71	71	71	71	71	71	70	69	70	71	70	73	70
P	MIN MAX MIN	69 87 68		89	88	89	86 71	89	86 70	87	87		89	89	87 67		8 9 6 9			89 70	89 70	88	88 71	88	89 67	88	89	89	88	88 69	87	88

Continued									D	AI	LY	T	ΕM	1PE	ER <i>I</i>	TA	UR	RES	5												WAlI SEPTEN	4BER	1967
Station																Day	Of M	onth															Φ.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
* * *																-	-			F						-							IQ.
ISLANO OF HAWAII																																	
HAINA 214	MAX M1N	84			87	8 6 6 8	88 69	87 68	82 67		83					86 67		86 67	86 71	87	88 69	86 67	86 68	86	86 67	86 67	87 67	87		86			85.6 67.6
HAWA11 VOLCNS NP HQ 54	MAX M1N	72 56		74 56	75 50	76 57	73 57	74 58	67 56	71 57	73 58	70 59			73 55		69 57	72 57	72 58	70 55		67 56	74 55	74 56	72	75	75	73	72	72	72		72.4
HILO WB AIRPORT	MAX M1N	84		85 72	85 67	85 70	85 72	84 70	85 69	84 71	85 71	85 71	85	86	85 68	79 70	85	85 70	85 69	86	85 71	84	85 69	84 69	54 85 67	54 85 67	53 86 67	51 83 70	55 84 68	56 86 68	85		55.5 84.7
XAINALIU 73B	MAX	80 64		8 0 6 4	82 63	81 64	8 2 65	84 65	81 64	81	83	80 65	82 64	80	79 64	80	81 65	80 62	81	82	83	80	82	83	81	80	77	80		83	81		81.1
KAMUELA 192.2	MAX	75 61	75 61	76 59	79 54	85 54	84 57	83	75 62	76 62	74 63	78 62	77 62	77 59	78 58	78 59	77 55	80	76 62	79	77 58	75	75	76 62	78 59	79 56	78 59	77	77	76 61	78		77.6
KAMUELA AIRPORT	MAX	76 59	76 60	76 61	78 61	80 60	77 60	76 60	75 60	76 59	76 64	78 68	77 60	77 58	76 60	77	76 60	79 51	78 69	78 60	78 60	76 61	77	77	78 54	80	76 60	75 59	76 60	75	76		76.9
XEAAU 92	MAX M1N	84	86 66	86 66	86 66	86 66	85 69	85 69	84	86 67	85 67	86 67	84 67	84	84	86	85 68	85 68	85	84	85 68	84	84	88	88	88	85 65	86	84	60 85 66	60 85 67		85.3
KEALAXEKUA 26.2	MAX M1N	80 65	8 2 6 7	81 64	8 2 6 5	82 65	83 67	84 65	81 66	81 66	83 67	81 66	83	80 65	81 65	8 1 6 5	80 66	82 63	82	83	81	82	81	80	82	80	80	80	81		81		81.4 65.1
XOHALA MISSION 175.1	MAX	82 71	83 71	84 70	84 67	85 68	84 71	85 70	83 71	84 70	80 71	84 72	84 70	84	84 68	85 68	82 68	84 71	84	83	84 71	82	83	83	84	84	85	83	82	82	82		83.4
KONA AlRPORT 68.3	MAX M1N	86 70	86 70	86 71	86 71	87 72	87 68	86 72	87 73	87 73	86 72	87 73	87 71	8 3 71	86 72	85 72	85 72	87 71	86 72	85 72	86 71	85 71	86 72	87	87	85	84	83	84	86 70	87 70		85.8 70.7
KULAN1 CAMP 79	MAX MIN	67 54	57 46	60	67 46	66 50	71 50	65 50	54	67 49	67 54	65 52	67 50	68	61 52	68	67 52	64 52	68	66	67	67	68	67	69	67	67	68	63	65	65	ч	66.0
MAUNA XEA BEACH	MAX MIN	95 68	96 74	89 73	90 72	91 73	90 73	89 74	91 75	90 74	90 69	90 75	90 75	88 72	87 72	88 73	87 74	89 73	88 75	89 73	91 72	95 72	90	88 72	89	88	88	87	89 75		92		89.8 72.9
MAUNA LOA SLOPE OBS	MAX	61 43	61	57 42	55 38	54 39	52 39	55 38	55 43	58 41	60 42	61 40	59 39	55 38	50 34	48	50 39	58 39	58 38	57 37	59 38	59 39	57 38	53	52	54	57	59	60	60	60		56.5
MOUNTAIN VIEW 91	MAX	81 61	83 59	84 58	84 59	83 58	79 61	81	78 62	78 61	80 64	79 65	79 63	82	80 59	80 63	78 62	82	81	76 60	82	78 61	80	82	78 58	83 57	83 58	83	81		79 60		38.8 80.5 60.6
NAALEHU 14	MAX	83 68	8 3 6 8	83 68	83 67	83 67	84	83 71	84 70	84 70	84 70	84 70	82	82	83	83	83	83	83	81	83 70	82	84	84 70	84	85	83	83	83	83	83	1	83.2 68.9
OOXALA 223	MAX	84 70	85 70	84 69	86 68	85 70	86 70	86 69	83 70	85 70	8 <i>2</i> 71	84 71	83	85 69	84	84	81	85 70	85 70	83	84 72	86 70	84	85	86	85 68	87	87	84	87 69	85		84.7 69.7
OPIHIHALE 2 24-1	MAY	9.4	80	9.2	70	0.4	0.5	0.5	70	0.4											_				- 0	-0	0 7	- 9	, 0	09	0.7		376/

### **EVAPORATION AND WIND**

MAX 84 80 82 78 84 85 85 79 84 83 80 80 75 78 78 79 71 80 78 79 82 80 83 80 77 78 80 82 81 80 M1N 62 65 65 63 63 64 64 65 65 64 65 65 66 64 65 65 67 64 64 63 62 64 63 60 63 64 60 60 61 63 60

80.2 63.4

82.4

85.5 72.3

OPIHIHALE 2 24.1

UPOLU POINT USCG 159.2

PAHALA 21

Station																Day_	Of M	lonth															Le r 9
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
1 SLANO OF KAUAI																																	
LIHUÉ WB A]RPORT	EVAP WIND MAX MIN		129	92	108	94	113	181	198	196	218	152	115	99	66	61 95	72 93	73 94	99 93	.31 121 92 71	156 91	216	163 87	+ 36 148 90 71	97 91	57 94	62 95	91 94			127		9.79 3714 91.5 70.4
1SLANO OF OAHU																																	
HONOLULU OBSERV 702.2	EVAP WIND MAX MIN		46 96	31 95	99	99	92	96	95	52 96	96	45 92	32 97	25 92	37	26 97	31 92	13 89	32 94	.25 38 95 73	40 94	39 94	34 93		19	32 96	23 96	16 90	33 91	28 90			9.24 1020 94.1 71.9
# # # 1SLANO OF HAWAII																																	
HILO #8 AIRPORT	EVAP WIND MAX MIN		63 93	52 92	93	57 91	6	63	53 87	62 88	5 9 8 5	66 90	51 91	88 88	92	4.8	53 88	•24 57 92 69	•13 58 87 70	.29 65 93 66	.22 64 88 69	•21 62 92 67	•28 60 93 68	66	.27 61 93 63	63	•24 57 89 67		.17 60 87 66	•23 62 88 66	85		6.01 1860 89.0 67.9

ON O	DE UDE	NOI	TIN	RVATI	D			O NO		GE †	UDE	NOL	Т	SERVA IME A	ND	
	DRAINAGE LATITUDE LONGITUDE	ELEVATION	TEMP.	ABLES	SPECIAL all north	OBSERVER	STATION	INDEX NO	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	PRECIP	- Ind	OBSERVER
ISLAND OF KAVAI  ALEXANDER RESV. 93 JIAO 02 KOLOA ARANGIA III JA 0185 01 EAWAI BKYOLI-000 STA 965 A 0240 02 KOLOA ERW J RESERVOIR 1094-1 045 02 KAWAI HALEWAMAMON 3006 A 1098 02 LINUE HALEWAMAMON 3006 A 1098 02 LINUE HAAAGE I TUWNEL 153 JITO 01 KAWAI	2 21 56 159 2 21 55 159 AU 2 22 06 159 2 21 54 159 AU 1 22 07 159 2 21 58 159 AU 1 22 07 159	19 116 32 726 30 446 22 356 35 16 19 25 26 496 28 1218	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7A X 7A X 7A X 7A X	5	MC BRYDE SUGAR CO. LINUE PLANTATION CO MC BRYDE SUG CO LID LINUE PLIN CO LID LINUE PLIN CO LID KESAMA SUGAR CO LID	LANAI CITY 672 LANAIHALE 684 MAHANA 694	3461 0 5286 0 5301 0 5704 0	I LAHAINA I LAHAINA I LAHAINA I LAHAINA I LAHAINA I LAHAINA I LAHAINA	1 20 5 1 20 4 1 20 5 1 20 4 1 20 5 1 20 4	0 156 55 9 156 53 3 156 55 5 156 55	1640 30 1620 3370 1430 1135 2040		W1 8A 7A W1 MO W1 WH	n n nn	OGLE COMPANY
MANTED 949   2161   03   44 ME   15   15   16   16   16   16   16   16	2 22 02 159 1 1 22 09 159 1 22 11 159 3 22 08 159 0U 1 22 06 159 AU 1 22 05 159 AU 1 22 05 159 1 22 158 159 1 22 158 159	28 1070 34 690 26 400 40 3600 22 800 20 179	84	7A 7A 7A 3A 7A 7A 7A 7A 7A 7A 7A	5	KEKAMA SUGAN CU LID  LIMUE PLIN CO LID  MC BRYDE SUG CO LID  # LLAUEA SUG PLIN CO  # MANALOMULUMULU R. 5-  LIMUE PLIN CO LID  LIMUE PLIN CO LID  LIMUE PLIN CO LID  KEKAMA SUGAR CO LID  KILAUEA SUG PLIN CO  # LLAUEA SUG PLIN CO	AUWAH1-252 FIELD 46 474 MAELAAU 477 MALEAKALA 8 E S 434 MALEAKALA RANGH 432 MALEAKALA RS 336 MALEAKALA SUMMIT 338.4 MALEHAKALA SUMMIT 338.4 MALEHAKALA SUMMIT 338.4 MALEHAKALA SUMMIT 338.4 MALEHAKALA SUMMIT 338.4 MALEHAKALA SUMMIT 338.4 MALEHAKALA SUMMIT 338.4	0790 0 0995 0 0999 0 1004 0 1008 0 1016 0	LAMAINA LAMAINA HAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO HAKAWAO MAKAWAO MAKAWAO	2 20 3 4 20 5 4 20 5 1 20 5 1 20 5 2 20 4 2 20 4 1 20 5 1 20 5	9 156 38 7 156 36 1 156 19 5 156 19 5 156 15 3 156 16 5 156 21 5 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	ВА	7A 6A 8A 8A 5A 5A	a sinc n	ULUPALAKUA RANCH MAUI PINEAPPLE CO, 5 MAUI PINEAPPLE CONPANY U OF MANUI EXP STA HALEAKALA RANCH CO HALEAKALA NAT PARK U OF MICH MT HKALA OBSY PHIL SCOIT MAUI PINEAPPLE CO, HARRY HASEGAWA
ATLAUEA POINT 1333	1 1 22 14 159 3 3 22 02 159 3 3 22 04 159	24 180 41 2150 46 36 28 240 29 640 29 640 23 731 30 100 23 375 22 207		BA FA FA FA FA FA FA FA FA FA FA FA FA FA	C J	U S COAST GUARD KEKAMA SUGAR CO. KEKAMA SUGAR CO. KEKAMA SUGAR CO LID GROVE FARM CO LID KILAUEA SUG PLIN CO MC BRYDE SUG CO LID MAWAIIAN SUGAR PL ASSN LIHUE PLIN CO LID U S WEATHER BUREAU	HANA AIRPORT HANAHULI 281 HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOLUA FLO 49 494 HONOHANU GULCH 341 IAO NEEDLE 387.2	1125 0 1148 0 1552 0 1882 0 1887 0 1914 0 1935 0 2208 0	1 MANA 1 MANA 2 MAKAWAO LAMAINA LAMAINA LAMAINA MAKAWAO 3 MAILUKU LAMAINA WAILUKU	1 20 4 1 20 4 2 20 4 4 20 5 4 21 0 4 21 0 1 20 4 3 20 5 4 20 5	8   156 01 1 156 01 5 156 13 5 156 36 0 156 39 1 156 38 7 156 14 3 156 33 4 156 38	61 325 6930 870 135 125 6280 1100 2000		11 A 7 A MO HO 6 A FIO W1		HAWAIIAN AIRLINES KOALI RANCH MALEAKALA NATL PARK RGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MALEAKALA RANCH CO STATE OLYSLON OF PARKS- PIONEER MILL CO LTO LC SWEATHER RUBEAUI
MAKAHUEHA POINT 5785 DZ KOLOA MAINE MAKAHUELI 965 5864 DZ MAINE MA	2 71 52 159 3 15 159 3 12 55 159 3 22 02 159 4 2 15 159 1 2 15 159 1 2 15 15 159 1 2 15 15 15 15 15 15 15 15 15 15 15 15 15	38 146 46 11 28 300 36 3500 20 330 30 5075 44 1250 28 1110	9A M	3A 7A 9A 1D 7A	c s	U S COAST GUARD OLONELE SUGAR CO KEKAMA SUGAR CO LTO GROVE FARM COMPANY 5 U S GEO SURVEY LIHUE PLANTATION CO. U, S, GEO. SURVEY KEKAMA SUGAR CO LTD LIHUE PLIN CO LTD LIHUE PLIN CO LTD	KAILIIII 436 KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEAMUA 410 KEANAE 346 KEAMAKAPU BACH 260-2 KIHEI 311 KIPAHULU 258 KUKUI 380	2630 0 2679 0 3433 0 3576 0 3910 0 4091 0	1 MAKAWAO 1 MAKAWAO LAHAINA 2 HANA MAKAWAO 1 HANA 2 MAKAWAO 3 WAILUKU 1 HANA	1 20 5 1 20 5 4 20 5 2 20 3 3 20 5 2 20 4 3 20 4 1 20 3	1 156 16 156 13 156 38 9 156 08 2 156 23 0 156 10 2 156 27 7 156 27 9 156 04	2520 700 1585 1020 480 980 20 90 260	7%	MO 7A W1 5A MO 6P 7A 7A		E HAUI IRR CO LTD E HAUI IRR CO LTD FINNER MILL CO LTD KAUPO RANCH HAWAIIAN COM + SUG CO E MAUI IRR CO LTD A. L. CORELL HAWAIIAN COM + SUG CO KIPANULU CATTLE COMPANY S MAUI PINEAPPLE CO
PH MAINIMA 1115 8155 01 MANALI PRINCEVILLE RANCH 1117 8165 01 MANALI P	1 1 22 12 159 1 1 22 13 159 3 22 01 159 2 21 58 159 2 21 57 159 2 22 04 159 2 21 54 159 2 21 58 159 2 22 01 159 2 22 01 159	29   295 42   1660 24   325 27   420 27   740 34   215 31   2100 27   565		5A - F		MC BRYOE SUG CO LTD PRINCEVILLE RANCH KEKAMA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD LINUE PLANTATION CO. MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LINUE PLIN CO LTD LINUE PLIN CO LTD	KUKA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 MAHIMAHINA 466 MALUMIA 482.2 MOKUPEA 475 NAKALELE -FLD 60-497	5003 0 5006 0 5177 0 5404 0 5665 0 5715 0 6042 0 6521 0	MAKAWAO Z MAKAWAO LAHAINA LAHAINA LAHAINA MAKAWAO LAMAINA 3 WAILUKU LAHAINA	2 20 4 2 20 4 4 20 5 4 20 5 4 20 5 1 20 5 4 20 5	7 156 19 2 156 22 3 156 41 1 156 37 1 156 39 3 156 15 7 156 40 7 156 32 9 156 37	2520 3004 45 1280 220 1240 715 1040 129	7 - 7 A	6A 7A 7A VAR 7A MO 7A	W 22 W	S MAUI PINEAPPLE CO KENNETH MULLEY XULA SANATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO E MAUI 1RR CO LTO B S OF A COUNCIL MAUI PINEAPPLE CO MAUI PINEAPPLE COMPANY
#Alawa 94)	3 21 59 159 2 22 02 159 3 21 57 159 4 2 2 1 54 159 3 2 1 57 159 4 2 2 1 15 157 159 6 2 2 1 15 159 6 15	21 50 41 20 31 210 57 455 51 20		3A 3A 3A 3A 3A		KEKAHA SUGAR CO LTD LINUE PLANTATION WAINEA SUG MILL CO MC BRYDE SUG CO LTD WAIAHOLE WTR CO LTD BOARD OF WTR SUPPLY DEL MONTE CORPORATION	OLINGA 332 OLGMALU 296 OLGMALU GULCH 377 PAAKEA 375 PAIA 406 PANILEIHULU 259-2 PAUWELA 490 POHAKEA BRIDGE 307-2 POLIPOLI SPRINGS 267-2	7040 0 7059 0 7066 0 7194 0 7566 0 7674 0 7857 0 8060 0	I HAKAWAO LAMAINA LAMAINA I HANA I WAILUKU HANA I HAKAWAO WAILUKU Z MAKAWAO	1 20 4 4 20 4 4 20 5 1 20 4 1 20 5 2 20 4 1 20 5 3 20 4 2 20 4	8 156 17 9 156 38 1 156 36 1 156 07 5 156 23 1 156 08 5 156 19 9 156 31 1 156 20	340 4127 7 800 1260 170 3570 485 167 6150		VAR VAR 7P MO 6A 6A W1 7A 6A VAR		MAUL CO WATER DEPT PIONEER MILL CO. PIONEER MILL CO. PIONEER MILL CO. TD HAWAIIAN COM + SUG CO KAUPO RANCH CO. HASEROT PINEAPPLE CO. WAILUNG SUGAR CO. STATE OLV OF FORESTRY
CHURCH COLLEGE LAIE	POKO 1 21 26 157 4 LU 2 21 21 157 6 21 21 158 6 21 21 23 157 6 21 23 157 6 21 23 157 6 3 21 24 158 6	47   13 50   565 02   42 54   170 00   1274 06   2220	84 :	PA 9A		RICHARD COBURN U OF H MARINE LAB J. L. BANNING EWA PLANTATION CO BOARO OF WATER SUPPLY WAJALUA AGR CO LTD H. V. VON MOLT U S COAST + GEODETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU	UKULELE 333 UKUMEHAME 301 ULUPALAKUA RANCH 250	8543 0 8553 0 8688 0 8742 0 8744 0 8750 0	1 HANA LAHAINA WAILUKU 1 HANA WAILUKU MAKAWAO 1 MAKAWAO LAHAINA 2 MAKAWAO LAHAINA	4 20 5 3 20 5 1 20 4 3 20 5 3 20 4 1 20 4 4 20 4 2 20 3	0 156 13 5 156 38 3 156 27 6 156 03 156 25 6 156 23 8 156 15 8 156 35 9 156 24 1 156 40	2980 2500 60 2160 85 1310 5230 75 1900 580		MO HO 7A 8A VAR MO 7A 8A 8A	Ē	E MAUI IRR CO LTD PIONEER MILL CO LTD MAMAIIAN COM + SUG CO S EAST MAUI IRRIGATION C HAWAIIAN COM + SUG CO KADNOULU RANCH MALEAKALA RANCH CO PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD
H 5 P A EXP 5TA 707 2146 02 HONOLI KAHARA B83 2466 02 HONOLI KAHARA 883 2466 03 HONOLI KAHARA 883 2466 03 HONOLI KAHARA 883 2466 03 HONOLI KALUA FIRE 51777 266 01 KOLIA KALUH 185 517777 2960 02 HONOLI KAHENAH 7244-7 055 01 KONOLI KANEOHE MANKA 781 3113 01 KONOLI KANEOHE MANKE 918 312 01 KONOLI KONI	2 2 1 18 157 2 2 2 1 18 157 2 2 2 1 18 157 2 2 0 1 15 157 2 2 0 1 15 157 2 2 0 1 157 2 2 0 1 2 1 3 1 157 2 2 0 1 2 1 2 1 157 4 2 0 2 2 1 2 3 157 4 2 0 2 2 1 2 3 157 4 2 0 6 0 1 2 1 2 3 157 4 2 0 6 0 1 2 1 2 3 157 4	50 50 54 800 57 25 59 10 50 910 51 1380 59 225 57 365	8.I	IA C		H S P A EXP STATION MRS. MILLIE ZAPATA WAIAHOLE WTR CO LTO KAHUKU PLTN CO KALUA FIRE STATION BOARD OF WTR SUPPLY HAWAII NATIONAL GUARD STATE HOSPITAL KANEOME RANCH CO	WAIKAPU 390	9315 0 9332 0 9335 0 9376 0	1 MAKAWAO	3 20 5 1 20 5 1 20 4 3 20 5 1 20 4 3 20 5 2 20 3	7 156 32 2 156 12 9 156 14 2 156 31 3 156 09 4 156 30	320 300 1200 4320 470 2630 200 220		6A WM VAR 6A 8A OC		WALLUKU SUGAR CO WALLUKU SUGAR CO E MAUI IRR CO LID MAUI CONTY WIR DEPT WALLUKU SUGAR CO S EAST MAUI IRRIGATION CO ST. ANTHONYS BOYS SCH MALEAKALA RANCH CO
KAPAKA MAKA1 905:1 3220 01 KOCLAN KAPALAMA 77 220 02 MONOLIN KAPALAMA 77 23 02 02 MONOLIN KAPALAMA 77 23 02 02 MONOLIN KAPALAMA 78 03 02 KOCKA MARIA KAMILA MAKA 906:1 24 02 KOCKA MARIA 833 47 05 WARIAN KUMU KAMILA MAKA 906:1 24 MARIA MAKA 906:1 2	2 2 2 2 1 157 4 5 158 1 5 158	52 614 11 20 59 1180 00 1050 05 725 58 1160 08 113				GEORGE H. SWIFT KAMEHAMEMA SCHOOLS WAIALUA AGR CO LTO WAIALUA AGR CO LTO WAIALUA AGR CO LTO WAIALUA AGR CO LTO C + FOFICER MEGG USN AMMUNITION DEP U S NAVY HILNOR LUM	AMUA UM1 75 AMIMI 182-1 EAST MONONANE 1838 HAINA 214 HAKALAU 142 HALEPIULA 117 HALEPOHAKU 111 HANA11 VOLCNS NP HQ 54 HAW1 163	0190 0 0450 0 0840 0 0905 0 1033 0 1060 0 1065 0	1 HAMAKUA 2 HAMAKUA	1 20 1 1 20 0 1 20 0 2 19 5 3 19 2 1 19 5	155 08 155 17 155 24	5220 1870 4240 461 105 3648 5770 9220 3971 600	8.A	MO W I MO 7A 7A MO MO MO 8A 7A	a su	GREENWELL RANCH KOMALA DITCH CO LTD KOMALA DITCH CO LTD HONOKRA SUGAR CO PEPEEKEO SUGAR CO KUKALAU RANCH CO STATE DUV. OF PARKS HAWALI NAT PARK KOMALA SUGAR CO
MARAHA KAI 796  MARAHA KAI 1796  MARAHA MALEEF F00-1  MARAHA MALEEF F00-1  MARAHA MARAHA MALEEF F00-1  MARAHA MARA	4 21 29 158 1 4 21 29 158 1 U 2 21 19 157 3 U 2 21 19 157 4 OKO 1 21 21 157 4 U 2 21 21 157 5	13 25 12 160 39 538 49 220 48 650 46 410 54 20	Bill 8			LUNALLO HOME CAPITAL INVEST CO CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARD MRS.JOHN H.SEAUHONT BOARD OF WIR SUPPLY EXP. STA. H.S.P.A. JOHN A ROXBURGH	HILO WB AIRPORT HOLJALOA 70 HOLJALOA BEACH 68 HORAUMAU 27 HONOHINA 137 HONOANE 181-1 HONOMU MAUKA 138 HONJAULA 71	1492 0 1557 0 1562 0 1665 0 1701 0 1864 0 1960 0	2 5 HILO 4 N KONA 5 KONA 5 KONA 1 N HILO 1 N KOHALA 2 5 HILO 4 N KONA 4 N KONA	2 19 4 4 19 3 4 19 3 4 19 2 2 19 5 1 20 0 2 19 5 4 19 4	3 155 04 3 155 55 7 155 59	27 3220 14 1089 300 800 1100 6250 6190	MID	M10 M M0 7A 7A 7A 7A 7A H0 H0 H0 6A	10= 1	U S WEATHER BUREAU STATE OIV OF FORESTRY VARIOUS RANCH MANDS MBS MALAE W HUA PEPEEKED SUGAR COMPANY KOHALA DITCH CO LTO PEPEEKED SUGAR COSTRY STATE OIV OF FORESTRY HUEHUE RANCH
NUJANU RES 4.783	5 21 34 158 0 .U 2 21 20 157 4 .U 2 21 21 157 4 3 21 25 157 5 .U 2 21 17 157 4 5 21 28 158 0 .OA 1 21 35 157 5	50 410 50 1060 56 995 56 1640 56 240 51 700 54 20	7/ 7/ 1	A D		BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY WATALUA AGR CO LTO BOARD OF WIR SUPPLY JAMES HUMENO GERGE L. BENNER PINEAPPLE RESEARCH INST KAHUKU PLIN CO NAT MEM CEMETERY	KAALA 1KI 12 KAAMALOA 29 KAHIAWAI 3.4 KAINALIU 738 KALAPANA NO 1 67.8 KAMAOA NO 2 5 KAMUELA 192.2 LAMUELA AIRPORT LAPAPALA RANCH 36	2249 0 2327 0 2512 0 2751 0 2894 0 3048 0 3077 0 3078 0 3300 0	3 KAU N KONA 3 KAU N KONA 2 S HILO 3 KAU 1 S KOHALA 5 S KOHALA 5 KAU	3 19 0 4 19 3 3 19 0 4 19 3 2 19 2 3 19 0 1 20 0 5 20 0 3 19 1	3 155 34 155 55 3 155 46 2 155 56 0 155 02 2 155 40 1 155 40 7 155 27	1340 1340 3700 1500 10 1375 2670 2665 2140	7A 6A 8A	7A 8A 7A VAR W1 6A 8	101	HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELL P. SNITM KONA EXPERIMENT STA HAWAIL VOLCANDES NAT PK HAWAILAN PANKH CO PARKER RANCH HAWAILAN AIRLINES HAWAILAN RANCH CO. INC.
ST STEPHENS SEM 788 800 01 KOOLAL TANTALUS PLAK 780 370 02 HONGLI TANTALUS 2 780.5 873 02 HON	U 2 21 20 157 4 U 2 21 20 157 5 U 2 21 18 157 4 U 2 1 30 158 0 POKO 1 21 28 157 9 U 2 21 17 157 4 U 2 21 17 157 4	49 2000 50 1325 49 79 13 854 53 745 67 40 17 32 11 20	7A 1	A A A A A A A A A A A A A A A A A A A		REV R CULLIMAN BOARD OF WATER SUPPLY R. E. WHITE DEPT. OF GEOSCIENCE WAIALUA AGR CO LTO WAIAMOLE WITR CO LTD SPENCER TINKER WAIALUA AGR CO LTD CAPITAL INVEST CO CAPITAL INVEST CO	KAUMANA 88-1 KAWAINUI LOWER 193 KEAAU 92 KEAIWA CAMP 22-1 KEALAKEKUA 26-2 KEANAKOLU CAMP 124-2	3770 0 3872 0 3925 0 3977 0 4098 0	2 5 HILO L HAMAKUA 2 PUNA 3 KAU 4 S KONA 2 HAMAKUA	2 19 4: 1 20 0: 2 19 3: 3 19 14 4 19 3: 2 19 5: 1 20 0: 1 20 1: 3 19 0:	5 155 39 3 155 02 155 29 0 155 55 155 21 155 45 0 155 48	290 1123 1080 280 1700 1450 5280 3840 2520 1925	8A 8A	W1 7A	0, 000	BOARD OF WATER SUPPLY SHIGEO MASUNA MONOXAA SUGAR CO PUNA SUGAR CO PUNA SUGAR CO HAWAILAN AGRI. COMPANY MISS ANY GREENHELL STATE DIV. OF FORESTRY KOHALA DITCH CO LTO KOHALA DITCH CO LTO STATE DIV OF FORESTRY HAUMA KEA SUGAR CO.
#AIRANC 895 9300 01 KOOLAN  #AIRANC 895 9300 01 KOOLAN  #AIRANC 897 970 01 HONGLE  #AIRANC 897 970 01 HONGLE  #AIRANC 994 995 02 HONGLE  #AIRANC 994 9921 01 KOOLAN  #AIRANALO 994 9921 01 KOOLAN  #AIRANC 994 9980 02 HONGLE  #AIRANC 9980 02 HONGLE	OKO 1 21 30 157 5 U 2 21 16 157 4 U 2 21 18 157 4 OKO 1 21 21 157 4 5 21 38 158 0 5 21 38 158 0	760 19 10 15 170 15 180 14 60 14 420 11 59	8A 8			WAI AMOLE WIR CO LTO WAI AMOLE WIR CO LTO HONGULUL TOO BOARD OF WIR SUPPLY WAILUPE VALLEY SCHOOL ST DIV WIR + LAND DEV WAIALUPA AGR CO LTD OAMU SUGAR CO BOARD OF WIR SUPPLY	KOHALA 179A  KOHALA MAULILI 176  KOHALA MISSION 175-1  KOIAWE LOWER 196  KOMA AIRPORT 68-3  KUKAIAU 222  KUKUIHARELE HIC 199  KUKUIHARELE MILL 206  KULANI CAMP 79	4670 0 4675 0 4680 0 4685 0 4764 0 4815 0 4928 0 4938 0 5011 0	I N KOHALA I N KOHALA I N KOHALA I HAMAKUA I HAMAKUA I HAMAKUA I HAMAKUA I HAMAKUA 2 5 HILO	1 20 14 1 20 13 1 20 14 1 20 05 4 19 35 1 20 05 1 20 05	3 155 47 155 48 155 38 156 01 155 21	1490 309 960 537 720 15 840 980 300 5170	8 A	W1 6A 6A 64 64		HAUMA KEA SUGAR CO. KOHALA SUGAR CO K. LYHAM BOND HONGKAA SUGAR CO HAWAIIAM AJRLINES HAHAKUA MILL CO HONGKAA SUGAR CO HONGKAA SUGAR CO ST DEPT OF SOCIAL SER U S WEATHER BUREAU
### ALBURARA 592   4.80F O1 HOLDER ### ALBURARA 510.45   6.90 O1 HOLDER ### ALBURARA	1 21 04 156 5 1 21 06 157 0 1 21 06 147 0 1 21 12 157 1 1 21 09 157 1 1 21 04 156 4 1 41 08 157 1 1 21 09 157 0 1 21 09 157 0	71 12 70 70 2 560 22 878 88 20 3 1075 96 450	8 8 6	K A A A		RALAUPAPA SETTLEMENT M. J. CARSTEN NO MOLORAL RANCHAL MOSPITA MOLORAL RANCHAL MOSPITA MOLORAL RANCHAL MOSPITA MOLORAL RANCHAL TO, OSE MONTE CORPORATION H. S. P. A LIBBY MCHILL + LIBBY ALOMA AIRLINES PULOMOLU RANCH MOLORAL RANCH MOLORAL RANCH	LAVA TREE PARK 66-1 MANUKA 2 MAUNA KEA BEACH MAUNA LOA SLOPE OBS HIDOLE HOLUALOA 68-1 MIOOLE PEN 147-1	5021 0 5260 0 5330 0 5460 0 6134 0 6180 0 6198 0 6268 0	N KONA 2 PUNA 3 KAU 4 S KOHALA 5 HAMAKUA 4 N KONA 1 N KOHALA	2 19 33 1 20 03 4 19 44 2 19 23 3 19 03 1 20 03 4 19 33 1 20 08	155 20 155 41	8300 5735 2615 1530 650 1760 103 11146 475 1380 600	BA MIO	WI WI AA BA BA MIO BA VAR MO	K K	U S WEATHER BUREAU ST DEPT OF SOCIAL SER STATE OEPT OF L + N RES KONA EXPERIMENT STATION STATE OHIVSOM OF PARKS U S WEATHER BUREAU L S WEATHER BUREAU KONA EXPERIMENT STA KAHUA RANCH HAWAIIAN RANCH CO

CONTINUED												011111011
STATION	NDEX NO.	DIVISION	DISTRICT	AGE 1	LATITUDE	LONGITUDE	ATTON		SER'		D	OBCEDUED
STATION	INDE	DIVI	DISTRICT	DRAINAGE	LATE	LONG	ELEV	TEMP.	PRECIP	EVA.P.	SPECIAL det sorte,	OBSERVER
ISLAND OF HAWAII  HOUNTAIN VIEW 91  NAALEHU 14  NAALEHU 14  NAALEHU 14  NAULU 1708EST 38.6  NAULU 1709EST 38.6  PARIOL 22  PARIUL 22  PARIUL 21   6568 6697 6731 6606 7131 7166 7185 7204 7312 7421 7421 7421 7421 7721 8051 8063	03 04 02 01 02 04 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 01 02 02 02 02 02 02 02 02 02 02 02 02 02	PUNA N KOHALA N HILO S KOMA PUNA HAMAKUA HAMAKUA HAMAKUA KAU S HILO S HILO S HILO S HILO	2 3 4 2 1 1 2 4 2 2 1 1 3 2 3 2 2 2 2 2 2 5 5	19 04 19 28 19 19 20 14 20 01 19 16 19 34 20 05 20 03 19 12 19 30	155 07 155 35 155 55 155 08 155 45 155 17 155 53 155 26 155 22 155 22 155 28 155 06 155 08 155 08 155 08 155 08	1530 673 395 1400 75 430 1270 445 415 800 870 670 5000 1270 100 1730 6511	8 A	6AA 7AR 7AR 7AA 7AA 7AA 6AA 7AA 7AA MOR 6AA			PUNA SUGAR CO HUTCHINSON SUGAR CO HUTCHINSON SUGAR CO KOMA E EPER HUENT STAIL PK. COMALA SUGAR CO MISS CLEUDAR CO MISS CLEUDAR CO MISS CLEUDAR SUPPLY MARALIAN AGR CO PUNA SUGAR CO MAUNA KEA SUGAR CO, MAUNA	

STATION		NO.	NOIS		AGE 1		ODE	TIME		ATION		SERV TME TAB	AN	D	0.000
STATION		INDEX	DIVISION	DISTRICT	DRAINAGE	ļ	LATITUDE	TONCITION		ELEVA	TEMP.	PRECIP.	EVAP.	SPECIAL MEX NOTES	OBSERVER
ISLAND OF HAWAII									= 1						
PUU LAAU 102-1 // PUU LEHUA 73 // PUU MALI 113 // PUUOKUHAU 167 PUU 00 82 PUU WAAWAA 94-1	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	3452 3460 3515 3548 3550 3555 3675 3679 3760 3830 9025	05 01 01 02 05 02 03 03 01 01 02		5 4 1 1 2 5 2 3	19 19 19 19 18 18	540 550 3455 12447 577 59 150 08	155 155 155 155 155 155 155 155 155 155	36 49 26 50 23 51 12 41 41 23 53 08	7750 7440 4850 6960 1800 2520 2340 400 305 3420 1 1050 3830	6.4	MO HO HO 7A 6A 7A HM WI 7A 8A 7A		c c	LUKALU PANCH CO.  ORENDA U PER FOHGAM ORENDA CHE CO.  ORENDA CHE CO.  KOMAAD BITCH CO. LTD  KOMAD CO.

DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO DRITA-ISL AND DIVISIONS) LANAI: 1-(NO INTRA-ISL AND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SASTERN 3-SOUTHERN 3-CENTRAL 4-WESTERN 5-CENTRAL 4-WESTERN 5-CENT

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Bomolulu, Hawaii, or to any Weather Sureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulistin are Temperature in °F., precipitation and evaporation in inches and wind movement in miles. In "Supplemental Data" table directions ontered in figures are tens of degrees. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations.

OBSERVATION TIME Data in the "Wentbly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Index. The Station Index shows observation time in local

etandard time.

BYAPORATION is seasured in the standard Weather Sureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. Was and Win in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all statione are climatological etandard normals based on the period 1931-1960.

STATION NAMES. Hawail state key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin.

INTERPOLATED VALUES for monthly precipitation totale may be found in the annual issue of this publication

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates.
- ++ Highest observed one minute windspeed. This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown
- A The letter "A" chown following station mame in "Climatological Data" table, "Daily Precipitation" table; and "Station Index", indicates amount carried in the "Total" column be for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of thie and previous bulletine for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- H Adjusted to a full month.
- J "Supplemental Data" table.
- One or more days of record mleeing; if average value is entered, less than 10 days record is mleeing. See "Daily Temperature" table for detailed daily record
- R Amounts from recording gage
- T Trace, an amount too small to measure.
- V includes total for previous month.
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
- AR Observation made after rain.
- C in Special Column of Station index indicates Recording Rain Gage Station. Scorily precipitation values are processed for special purposes, and are published later is the "Scorily and are published later is the "Scorily and are published in "Climitological bata" bulletin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Scorily Precipitation Data" bulletin.
- MO Gage read once monthly; usually on the last day.
- OC Gage readings at periods varying from a few weeks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June 1880s of this publication.
- SS Observation time is near sunset.
- VAR Observation time is variable.
- Wl Gage read weekly or irregularly only.
- WM Gage read weekly and last day of month.
- # Therecevers are generally exposed in a chelter located a few feet above cod-covered ground; however, this reference indicates that the thermometers are exposed in a chelter located on the roof of a building.

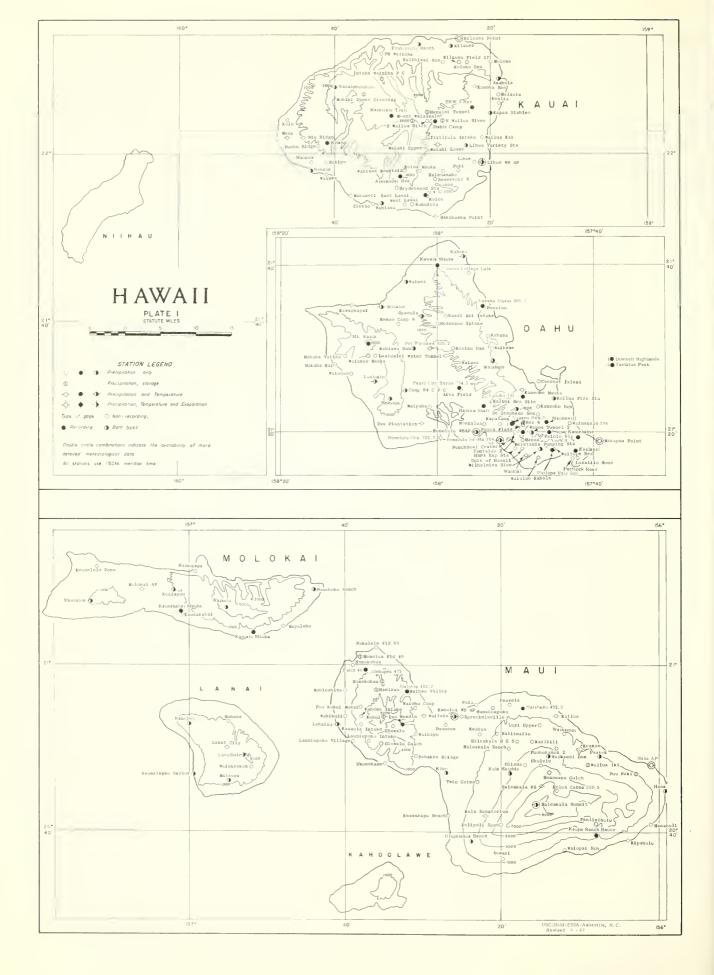
Stations appearing in the Index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue.

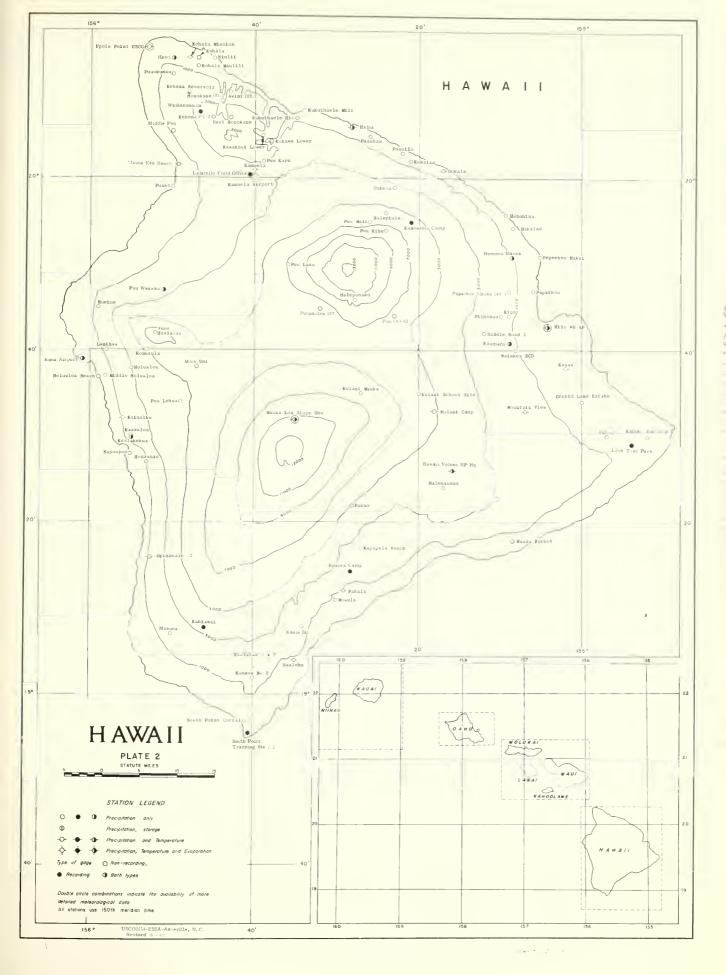
General weather conditions In the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, MONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documente, Government Printing Office, Washington, D. C. 20402.

Information concerning the hietory of changes in locations, exposure, etc., of substations through 1937 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Sureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Documents the address shown above.

Subscription Price. 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documente. Resittance and correspondence regarding subscriptions should be sent to the Superintendant of Documente, Government Printing Office, Nachington, D. C. 2004.

USCOMM-ESSA-ASHEVILLE -1/2/68-890







CLIMATOLOGICAL DATAVERSITY

U. S. DEPARTMENT OF COMMERCE
ALEXANDER B TROWBRIDGE Societary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

HAWAII OCTOBER 1967

FF= 20 1.93

Volume 63 No. 10

### CLIMATOLOGICAL DATA

										 			,	10						2/	7			
	7		1		Tem	perat	ure		-					1	.,_	717	C 13	Precip	italión,	_				
Station					70					Mo	o. of	Doys			\	-	CH.	Čl. 	ono	w, Slee				Days
3,010.11		Average Maximum	Average Minimum	Average	Deporture From Normol	Highest	Dote	Lowest	Dote		+	ow or	Below Woles	Totol	Deporture	From Norm	Greatest Day	Dote	Totol	Max. Depth on Ground	Dote	5	.50 or More	1.00 or More
ISLANO OF KAUAI																								
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A	72.2	54.0 71.6	63.1		78 90		47 68	5	0	0	0	0	1.91 3.54 2.89 4.70 2.69		3.01 2.37	1.62		.0 .0 .0		0	9	1 0	0 1 0 0
KOLOA 936 LIMUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	83.8 87.9	71.2 67.9	77.5 77.9	• 6	86 91		65 60		0	0	0	0	3.62 1.85 .81 V22.53 6.12	-	1.69 2.18 1.24	.62 .42 1.91 I.28	30 20	.0 .0 .0		0000	6 3	1 0	0 0
PUEHU RIOGE 1040 WAHIAWA 930 WALAHI LOWER 1054 WALMEA 947	A .	82.6M	65.3M	74.0M		85	29+	60	14	0	0	0	0	2.43 2.02 10.44 2.53	-	.62	.56 .55 1.86 1.18	20	.0		0	6 20 4	1 7 2	0 0 1 1
ISLAND				74.2										3.50					•0					
ISLANO OF CAHU																								
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEUHE MAUKA 781 KOOLAU OAM 833	R	88.1 85.0M 83.7	73.1 72.0M 71.2	80.6 78.5M 77.5	2.4 1.2 1.4		3 18+ 22	69 67 69	9 30 24+	9	0 0 0	0 0 0	0	.90 1.53 V 6.87 7.57 7.44	-	.3I 1.82 .36	.30 .53 1.40 2.00 I.56	23 13 24	.0		0	12 17	5	0 0 1 2 2
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLU VALLEY 718		81.3 83.5	73.0 67.0	77.2 75.3	2.9		17+	69	31	0	0	0	0	.73 .81 7.10 2.88 [1.26	-	2.19 1.83 1.97	.34 .22 1.70 .55 2.52	9 8 20	•0 •0 •0		0000	2 5	0	0 0 2 0 4
PRI WAHIAWA 820.2 Punaluu 884 Wahiawa Oam 863 Waiahole 837 Waialua 847	A A	85.7	65.5M	75.6M	1.1		14.	61	16	2	0	0	0	3.40 V14.06 2.80 17.14 1.11		5.06 1.58	1.96 .58 4.35 .53	8	•0		0000	8	1	0
WAIKIKI 717.2 WAIPAHU 750	A	88.6	71.1	79.9		92	15+	67	9	9	D	0	0	1.49 1.09	-	1.25	.93		•0		0	3	0	0
I SL ANO				77.6										4.48					•0					
ISLANO OF MOLOKAI																								
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKA1 AP 524	A	83.7	70.9	77.3		88	14	67	17+	0	0	0	0	1.35 3.32 1.61 .49	-	1.07 .09 .76	.71 .48 .59	29 3I	•0		0000	13	0 1 0	0 0 0
ISLANO				77.3							Ì			1.69					•0					
ISLANO OF LANAI																								
LANAL CITY 672		79.0	65.7	72.4	1.7	84	8.	63	90	0	0	0	0	1.96	-	•99	1.09	30	•0		0	6	1	1
1SLANO				72.4										1.96					•0					
ISLANO OF MAUI																								
HALEAKALA 8 E S 434 HALEAKALA RS 338 HANA AIRPORT HONOKOHUA 493 KAHULUI W8 AP	A A R	64.5 84.7 85.9	47.3 70.8 68.5	55.9 77.8 77.2	1	73 88 89	2 2	40 65 62	7	0	0	0	0	4.58 2.61 6.90 2.08 .77	_	.29 .60	1.45 2.30	14 24 24	•0		0 0 0 0 0	8 5 11	2 1 4 0 0	1 0 0
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	A	74.1 88.3	65.8M 58.5 70.8	73.2M	•1	76 92		61 55 68		0	0 0	0	0 0	6.96 11.80 9.43 .67	-	2.36 3.55 1.13 1.59	3.14	20 15	• 0 • 0 • 0		0 0 0	18 15 2 1	6 0 0	2 3 0 0
PAIA 406 WAILUKU 392 ISLANO		86.9	67.8	77.4	. 4	90	13	64	16+	1	0	0	0	1.32 .93 4.03	-	•84	•43 •28		•0		0	4	0	0

					Ten	perat	ure										Precip	oitotion				_	
										1	Vo. of	Doys						Sno	w, Sleet		N	o. of	Da
Station		Ε.			re					M	ax.	Mi	n.	ļ	e E	Doy			Depth		ore	ore	
		Average Moximum	Average Minimum	Average	Deporture From Normal	Highest	Date	Lawest	Dote	90° or Above	32° or Below	32° or Below	Below	Totol	Deporture From Normal	Greotest Doy	Dote	Totol	Mox. De	Date	.10 or More	.50 or More	
15LANO OF HAWA11																							
HAINA 214 HAWAII VOLCN5 NP HQ 54		84.2	67.0 55.2	75.6 63.5	1.6	88 77	3	64	5 16	0		0	0	2.26 3.71	- 2.99 - 3.17	1.55		•0	0		3	1	1
ILO WB AIRPORT UEHUE 92A AINALIU 73B	R A	84.9	69.5	77.2	2.1	90	4	64 59	8	1 0	0	0	0	10.08 4.26 3.50	72 .67 - 2.70	3.67 1.46	31	.0 .0 .0	0		14	7	
AMUELA AIRPORT		76.4 85.5	57.6 66.3	67.0 75.9	1.5	8 O 8 B	9+	5 O 6 4		0	0	0	0	2.57	- 4.88	.83 1.72	31				5	i 41	ο.
EALAKEKUA 26.2 EHENA RESERVOIR 176.1	A	81.6	64.6	73.1	1.00	84	24+	62	15+	0	0	0	0	6.22	- 7.05	1.94	14	•0 •0 •0			15	3	
DNA AIRPORT 68.3 UKUIHAELE HIC 199		85.1	67.8	76.5		87	24+	64	27+	0	0	0	0	1.31	2.10	.57	1	•0			4	1	
JLAN1 CAMP 79 NUNA KEA BEACH		67.1M	47.9M 72.3	57.5M 80.5		72 94	6 22	41 67	9	0 11	0	0	0	2.26 1.32 1.97	- 3.68	1.40 .70 1.21	21	•0	0		5	1 1	
HALA 21 HAKULOA 107	Α	82.5	64.7	73.6	.4	88	26	61	6+	0	0	0	O	3.80 1.33	21	1.08	8	•0			9	2	
AKO 95A U WAAWAA 94.1 UKOA 118														1.13 5.13 1.32	2.25	.50 3.21	14	•0	0		3	1 3	
ALAKEA SCO 88.2														8.96	- 5.03	1.97		•0			16	6	
15LANO				72.0										3.83				• 0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 94° ON THE 220 AT MAUNA KEA BEACH, HAWAII LOWEST TEMPERATURE, 34° ON THE 24TH AT MAUNA LOA SLOPE OBS, HAWALL GREATEST TOTAL PRECIPITATION: 24.55 INCHES AT KAHANA 883, OAHU LEAST TOTAL PRECIPITATION: .07 INCH AT KIHEL 311, MAUL GREATEST ONE-DAY PRECIPITATION: 4.35 INCHES ON THE 19TH AT WAIAHOLE 837, OAHU

#### SPECIAL WEATHER SUMMARY

The major feature of this month's weather was the ending of the protracted dry weather which had affected the northern and eastern sections of Hawaii Island, from Kohala to the Puna District. The lack of rainfall in these areas, which are subject to recurrent drought, first became troublesome during September, when virtually every station along the Kohala-makua coast recorded less than half its monthly mean, and many less than one-fourth. Dry weather continued through October with only slight respite from occasional, scattered light rains. Again, Kohala-Hamakua received well under half the average rainfall for the month, and the Hilo and Puna areas were below normal.

In the Honokaa area, the last significant rainfall had been on August 8, when 1.38 inches of rain fell.

Irrigation restrictions were put into effect in the Waimea area on October 10, and some ranchers began trucking in their water. The Puna district was declared an emergency area on the 12th, but some rain on the 13th temporarily alleviated conditions. By the 17th, however, the area was as dry as it had been the previous week, and it became necessary for some residents in the Glenwood and volcano areas to begin hauling water.

The lower Hamakua ditch system was at only two-thirds its normal flow, while the water shortage in the Kohala Ditch irrigation area was termed "the worst since the severe 1962-

1963 drought." Hardest hit by the dry weather were the unirrigated upland sugarcane fields of the Hamakua coast plantations.

Heavy showers at mid-month alleviated conditions in Puna, and steady, gentle rains, totalling up to 2 inches in 24 hours along the Hamakua coast and in the Waimea and Kohala areas on the 30th and 31st, appeared finally to have broken the severe dry spell.

Several other weather events of interest occurred during the month.

On the 10th and 11th, high surf, generated by a storm in the Gulf of Alaska, swept onto the north shore of all islands except Hawaii, but no damage was reported.

Heavy rains of nearly 2 inches in 1-1/2 hours in the North Kona area of Hawaii Island during the afternoon of the 13th, washed out a 30-foot section of the Mamalahoa Highway near Keopu and a small section of Hookena Beach Road. On the afternoon of the 24th, heavy rains again fell on North Kona. A gage at Kealakekua reported 1 inch of rain in 15 minutes and 1,70 inches in 30 minutes, the latter having a recurrence interval of 50 years in that area. A section of the Belt Highway at Alae was washed out.

During the evenings of the 18th and 19th, a light snow mantled Mauna Kea and Mauna Loa on Hawaii Island down to the 10,000-foot level.

> Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

	F													Day	of M	onth																
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	30	31
SLAND OF KAUAI	}																															
AHOLA 1111 A 170E5-000 5TA 985 A 1ST LAWAI 934 A EELE 927 A LAULA 1110 A	1.91 3.97 3.83 1.84 2.90	*	.26 .64 .85 .56	.09 .48 .23 .26	.05 .27 T	*°1	.17 .01 .07		•	•20 •33 •47 •10 •20	.01 .08 .14 .04 .21	.15 .08 .10	.02	.02 .05 .10	:	:	.12	.01	•09	.02 1.15 .46 .61 .37	.03 .50 .45 .10 .39			.03 .33 .27 .15 .03	.01 .03 .09	T •02	.01	.05 .05 .09 T			.06 .10 .02	.07 . .02 . .04 . .32 .
LENANAHO 1006  KIPO 945  ILILIULA INTAKE 1050  ITAKE WAINIMA PC 1086 A  LIMI-AI RES 1131	4.61 1.83 12.64 9.89 5.53		.86 .20 1.05 1.33	.38	.24 .47	.16 .41 .35	.40 .02 .37 .03	.50	.90	.59 .63 .62	•19 •62 •	.50 .49 .22	.06	.15 .42 .41 .36	:	.05	.06 .35 .21	.01	.03 .38 .10	.19 .63 1.12 .29		.80	.21	.07 .65 .63	.32	.08 .20 .01	.03	.23	.84	.50 • 1	.21 .16	.07
NALOMULUHULU 1075 NEMA RESERVOIP 1092 A PAA STABLES 1104 A ALIA 1112 A KAHA 944	3.54 4.65 2.89 2.03 1.64	:	.05 .67 .40 .21	.09 .21 .37 .08	•20	.34	.04 .08 .15 .09	.05	.10	•60 •18 •17	.11 .19 .10	.28 .18 .20	.03	.28 .20 .04	.14	:	.05	.24	.12	.07 .20 .16 .40	.45 .16 .21		:	.10 .40 .03	.07 .03 .02 .10		•02 •02	.19	T .	.02	.30	.160620 .
LAUEA 1134 A LAUEA FIELO 17 1135 A LAUEA ROINT 1133 LO 1033 LOA 936 A	3.41 4.70 2.69 1.89 3.62	.45	.55 .92 .06	.08	.02	.03	.02	.20	:	.36 .51 .07	.08 .11 .11	.11	.01 .05	.10	:		.08	.74	.13 .42	.08 .11 .05	.35		.13	.17	.02	.01	.01	.01	.20	* •50	.10	.01 .
LLOA MAUKA 994 ALOKO RES 1137 AKUIULA 935 HUE VAPIETY STA HUE 1020 A	6.39 5.00 2.13 V10.39 3.28	.15	.82 .20 .75	.41 .30 .29 .03	.57 .03 .11 .13	.08 .09 T	.21 .07 .03 .50		.20	.58 .47 .34 .28	.18 .08 .09	.08 .17 .05 .09	.01 .01 .12	.14 .18 .05 .05	:	:	.17 .43		.08 .02	.71 .07 .33 .27 .20	.61 .58 .20 .83	.31		.52 .39 .06 .06	.03 .02 .33 .18	.01	•12 •10 •03	.12 .31 .11	:11	*21	.70 .48	.02 .
HUE WB AIPROPT P. KAHUENA POINT KASELI 965 A NA 1026 HIHI UPP CPOSS 1083	1.85 1.17 1.21 .81	.15 .10 .17	.12 .02 .09	.08	.02	.02	.62 .12	.07	• 32	.11 .06 .04	+12 +12	•01	.05	•01	T .	.02	.01		.01 .01 .81	.22	.04	.03 .06 .05	.02	.01	.01		.02	.06	.02	•05	.42	.02
LOAA 1145 A U PIOGE 1035 WAILUA 01TCH 1051 WAINIHA 1115 INCEVILLE RANCH 1117	2.57 1.07 V22.53 6.12 5.38	.35	.58 1.04 .32 .76	.05 .67 .17	.62 .11 .10	.05 .06 .22 T	.26		.68 .59	.08 1.78 T	.18 .82 .24 .03	.29 .10	.07 .04	.09	.13	.05 .10	.07	.01	.30	.22 .17 1.17 .09 .22	.04 1.91 .72 .50			.01 .34 1.51 .30 .07	.07 .22 .02	T •04	.04	.34 .11 .82	.04	• 1	.01 .39 .87 .28 .27	.51 .
EHU RIDGE 1040 H1 1013 A SERVOIR 6 1004 A HIAWA 930 A HIAWA MOUNTAIN 990 A	2.43 4.15 5.13 2.02 8.13	:	.01 .78 1.09 .36	.13 .09 .26	.12 .15 .02	.10 .19 .04	.45 .56 .47	:	*	.38 .68 .25	.15 .08 .11	.04 .11 .21 .02	.01 12	.05 .20 .03	:	:	.08	.09	.01 .03	.56 .31 .62 .55	.08 .20 .26 .16	:	:	•15 •34 •11	.34	.01 .01	•15 •12	.11 .25	:	:		.33 . .03 . .02 .
IAH1 LOWEP 1054 IAH1 UPPER 1052 IAWA 943 ILUA KA1 1065 AMEA 947	10.44 10.77 .75 3.71 2.53	.35	.75 .80 .02 .38	.48 .77	.44 .50	.18 .30 .17	.53 .02	.60 .65	.35 .35	e25	.42 .55	.30 .27	.07	.48 .07		.02	.02		.02 .12 .05	.55 1.36 .20 .78 .37	1.86 1.98 .51	.81 .77	.15	•31	.32 .35 .05	.06 .10	.06 .05	.32	.31 .42	.03	.33 .23 .29 .23	•22
ST LAWAI 931 A SLANO OF OAHU	2.80	•	.26	.19	.05	T		•	•	.68	.05	.03	.02	.02						.36	•23	•	•	•11	.74							.06 .
EA FIELO 625 761 A PETANIA PUMRING 5TA MP 84 807 A UPCH COLLEGE LAIE CONUT 15LAND 840.1	5.20 2.27 2.63 6.89 4.38	.18	.44 .10 .04 .22	.07 .01 .02 .33	.05 .02 .01 .14	T •26		.04	.61 .16	.92 .01 1.17 .13 .50		.12 .03 .06 .16	.01 .16 .03	1.61	1.40				.20		1.20 .55 .27 .27 .33	• 10 • 03 • 04	• 05	.03	1.20 .12 .23 .25 1.77	.02 .01	.12 .05 .10 .05	T .08			.07	.08 .18 .14 .04 .05
A PLANTATION 741 LEMANO INTAKE 881 A KULOA 725,2 NOLULU 085ERV 702.2 NOLULU W8AP 703 R	.70 5.38 .97 .90 1.53	* T	.11 .65 .04 .02	:	.01	.35	.02	* T •02	•10 •32 •23 •32	.09 1.15	* T	.05 .03	:12 T	:	:	.08	•17	•	.23 .07	.06 .62 .03 .31	.03	* T .04	* * T	.53	.16 T	.02	.81	:	:	.01	.21 .17 .22 .30	.27
NOLULU SUBSTA 704 S R A EXR STA 707 HANA 883 A HUKU 912 1LUA FIRE STA 791.3	1.81 2.62 24.55 6.87 2.99	.02 T *	.04 .14 2.13 .32 .15	•01 • •23 •06	.02 • •11 •02	.02	• T	.10	.59	4.30 .97 .93		.04 .03	.01 .04 .04	.01 1.40	:	:	6.40		.04	.66 .50 .65	.02 .83 *	.01 .21	T * * T	.25 5.80 .08	•°1	•03	.03 • •18 •05	.07	.04	. 4	.35	.11 1.57 .02 .10
LIHI RES SITE 777 NEOME MAUKA 781 NEOME RANCH 838 A PALAMA 773 WAIMAPAI 841 A	7.98 7.57 7.66 3.19 1.15	.40	.24 .45 .80 .03	.02	.26 .32 .13	.10 .02 T	† <sup>01</sup>	.01	3.16	.82 2.80 .12 .65	.20 T	.02 20 T	.09 .03 .10	.22 .65 .32	.01	.01			.46	.70 1.35 1.30 .61	.38 .45 .08	.27	.02	.28 .12 .11 .62	.24 2.00 1.75 .36	.01 .09 .17	.10 .05 .10 .10	.02 T	.18 .05 T	•01	.64	.04 .11 .29 .18
WAI 1K1 INTAKE 880.2 A MOO CAMP 8 855 A OLAU OAM 833 ALUALEI 804 ALUALEI WTP TUNNEL A	4.00 3.66 7.44 .73 1.50	.06 .11	.08 .45	.04	.47	.05	•12	.05	• 26 • 59 • 24	.60 .17 .09		.03 .21	.01 .30 T	• •07 *					.06	.06 1.18 T	.45 1.56 .01 1.50	.46	.01	.05	1.42 .33 T	.02 .23 .01	.10 .11 .01	.02	:	:	.15 .32 .34	.00 .18 .03 .01
NALILO HOME 724.2 KAHA KAI 796 KAHA VALLEY 800.1 KARUU ROINT 724 NOA 712	2.04 1.03 .56 .81 4.87	.07	•12 •02 •05 •32	•10	•19	.02			* * *16 1.04	.32 .47 .40 .22		.17	.12	•17						.05 .07 .10	.41	.02 T		.04	.63 T		.20	т		.02	•47 •06	.33 .01 .14 .29
NOA TUNNEL 2 716 ANALUA 770 UANU RES 4 783 UANU RESEPVOIR 5 775 A AEULA 870	12.52 2.78 7.10 6.13 2.88	.40 .04 .22	.56 .16 .42 .66	.24 .03 .12 .09	.32 .07 .30 .20	.06 .02 .02	•03		1.70	.03 .02 1.08	*02	.26 .07 .08 .09	.16 .19	.03	.02				1.20	.54	.60 .53 .32 .94	.04 .08 .10	.02 T .08	.90 * .49	.56 .12	.18 .59	.18 .02 .12 .25	.04 .05 .14	.16		.10	.30 .04 .22 .35
LOLO VALLEY 718 UOA FLATS 784 RYLOCK ROAD 724.4 I MAMIAWA 820.2 NALUU 884	11.26 12.50 2.92 3.40 V14.06		.54 .92 .05 .16	.10 .12 .03	.12	.30 .08	•02	.44 .22 .23		.04 .02 .01 1.19 1.70	.14 .06 .03	.42 .05 .05	.04	.02 1.96	:	:	• 19 • 15	.92	1.04 1.66 .15	1.46	.84 .84 .03 .65	•12	.14	.74 .52 1.19 .28 .15	.02 .04 .75 .06	•10	.10 .44	.06 .08 T	.18 .30	.02 1	.50 .70 .30 T	.14 .46 .01 .10
NCHBOWL CPATER 709 A STEPMENS SEM 788 NTALUS 2 780.5 IV OF HAWAII 713 A MIAWA DAM 863	2.71 7.71 8.76 2.90 2.80	.13	.12 .28 .52 .19	.02 .18 .21 .02	.02 .09 .12	.02 .08 .12 .02	T •01	:	.84 .35 1.27	.02 2.03 .21 .84		.04 .08 .18 .07	.01 .07 .24 .07	.48 .11 .05	T			т	Ť	.58 .31 1.93 .35 .25	.62 .11 1.86 .77	.11 .04 .66	.01 T .03	.41 .08 .04	.04 2.41 .07 .19	.07	.10 .08 .38 .03	.06	.02	.02 .01	T •03	.14 .43 .49 .17
IAHOLE 837 A IALAF KAHALA 715 IALUA 847 A IANAE 798 IANAE MAUKA 803 A	17.14 2.14 1.11 .38 2.10	.01	.12	.25 .01 .01	•39 T T	.32 T	•02 T	•	• •46 •53 •	2.30 .01 .08 .15	•01	.38 .08 T	.01	*49 T	.04		.16	.09	.08	.05	.36	.01 T		•42 •02	1.12 .15 .13	T	.09 T .04	.31	•17		.12	1.17 .32 T
IA+A 836 A 1KANE 885 A 1KIK! 717+2 1LUPE RESERVOIR 170 A IMANALO 794 A	14.36 19.01 1.49 3.66 2.83	•	.05 .05	:	•	.27 .04	2.90	•	* •93 •87	3.18 T	* * T	* *	.72 .02	2.90	* * T	:	4.00		:	• • 32 • 59 • 14	6.15 .12 	.05	:	4 4.60 .02	.73	* • •	* 1 • 2 0	.03	:	: 4	.85 T	.75 1.06 .05 .88 .03
IMEA 892 A IPAHU 750 A LHELMINA RISE 721	2.63 1.09 2.80		.40	•05	•10 •03 •14	.08		.14	1.16	.60 .30 .02	.04	•05	•02	.06					.26	.40 .34		:	.02	•22 •01 •02	•10 •02	•02	•05 •03	.13	:	:	.05	.01 .02 .30

Continued												. 1		J11	11	_	11	O I V	•											HAWA1	1 ER	1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15LANO OF MOLOKAI																												-	50	20	50	
KALAUPAPA 563 KAUNAKAKAI 536 A KEONELELE PEN5 551 A KUALAPUU 534 A MAPULEHU 542 MAUNALOA 511	2.63 .73 .94 1.35 3.32					.10		.30	.40	.29 .18 .18 .34	•10	.08 .05	.02	•01			.16	.08	.10	.30	.30	* .11	T .	.29 .07 .25	.10	.06	.01 .05		* .32	* .48	.28 .05 .25	.95 . .27 . .60 . .71 .
MOLOKAI AP 524 PUUOHOKU RANCH 542+1 WAIKOLU 540  ISLANO OF LANAI	3.23 3.18	.12			+15		.05	-	.09 .85	.69		.00	.02	Т			.10		•20	• 05	.15	•12	.27	•20 1•30	.75		•01		•	.17	.47	.59 . .23 .
KANEPUU 690 A KAUMALAPAU HARBOR 658 A LANAI CITY 672 LANAIHALE 684 A MAHANA 694 A	2.54 1.18 1.96 4.52 1.67		:	:	:	.12	:	:	.10	*14	:	:	.26		# # T # #	.02	.10	# +22 #		.02		:	:		.18	:	•15	.01	* T	.12	1.09	1.95 · .06 · .24 · .2.77 · .1.67 ·
MALAUEA 676 A WALAKEAKUA 685	2.06	•	•	:	*	.02				.07			T.	:	:		.09	*64	٠	•40	•	٠		•	2.57	:	• 09 •	:	:	:		1.55 · 1.30 ·
15LANO OF MAUL										,																						
AUWAH1-252 A HALEAKALA B E 5 434 A HALEAKALA RANCH 432 A HALEAKALA R5 338 HALEAKALA SUMMIT 338.4	1.20 4.58 1.38 2.61 1.50	* 01	* 02	.03 *		•			.01	•		•11 *		9	1.02 e I.45	.01			* T T	* T T	.06 * .10	.32 .09	.39 .26 .20	.01	1.10 * .12 .14		.14 .04 .06	.45 .11 .04		•	.10 .16 .12	1.89 · .85 · .40 ·
HALIIMAILE 423 HAMAKUAPOKO 485 HANA 354 HANA AIRPORT HANAHULI 281	1.06 1.64 6.98 6.90 9.82	.03 .26	.05 .21 .16	.04 .39 .16	.01 .08	.03 T	.06 .06				.01	.10 .12 .02 T	.04 .02 .24	.03		.21	.35	.03 T	.19 .10 .20	.04 .03 .81 2.86	.04 .27 .11 .76	.06 .15	.45	2.90	.05 .36 2.30 .20	.68	.09 .40 .90 .55	.04 .06 .09 .46	.02 .02	.01 .13 .06	*06 T .13	.39 . .22 . .06 . .75 .
HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOMANU GULCH 341 KAHOMA INTAKE 374 A	1.91 7.90 2.08 4.00 4.12		:	.70	.02	.04	.02 * .67	:	•	.12	:	.04	.08	.02 *	:	:	:	•02	:	.39	.14 .14	.69 # #	:	.43	.44	:	• 04	.03 1.18	:	:	.05	7.90 · · · · · · · · · · · · · · · · · · ·
KAHULUI WB AP R KAILIILI 436 KAILUA 446 KAUAULA 1NTAKE 375 A KEAHUA 410	3.31 6.96 1.00	.13	.28 .13	.21	* 33	•	•	•	•	.02	T	.11 .25 .01	.02	.49	.02	.01	.06		*	T :44	1.04	.76	.18	•11 •15 •41 •32	.12	.35	.10 1.13 .02	.43	.18	.07	.38	.28
KEANAE 346 A KEAWAKAPU BEACH 260,2 KIHEI 311 KIPAHULU 258 KULA HEIGHT5 323,2	11.80 .37 .07 9.43		1.10	.04	.20	•	•	*	*	•	•	•12		.24	•	.17		.09	.45	.09	3,14	.59	.20		10 T 1,20	•01 •23	.01	.68	.09	.02	.04 .50	.06 .
KULA 5ANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442 A	.67 .25 2.35 .42 5.10	•							.01	.03					.05	.30	.04				*			.05	10				T 2+35		.32	5.10
MAHINAHINA 466 A NAKALELE -FLO 60-497 A OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 A	1.23 2.09 2.32 .67 1.40	:	.04	.02	* T *					.05		.05	•	*01	•06	T .	•21		*	.23	.03 .06	.04	. 24	.23 .55 .25	.15 *	† •	.10	.39	*	•	- 1	.31 . .34 . .98 . .10 . 1.40 .
PARKEA 350 PA1A 406 PANILEIMULU 259.2 PAUWELA 490 POHAKEA BRIOGE 307.2	12.96 1.32 4.80 2.86 .71	*	*17 T	.12	.05	•	•		•	•	•	.14	.16	**		•			•	*	.82	.05	.10	.32	.26 .02 .09 .27	.03	.39	.10	.10 T		.09	3.35 . .30 . 4.80 . .26 . .29 .
POLIPOLI SPRINGS 267.2 A PUOHOKAMOA 2 343 A PUU KUKUI MAKAI 472 A PUUNENE 396 SPRECKELSVILLE 400.2	2.45 13.00 4.60 .77 .54	:	:	T	.02			:		:	:	.01						:	1.33		:	T .	.15	.01	.22	1.01	.08	.01	:	:	.13	3.00 . 4.60 . .18 .
TWIN GATES 261.3 A UKULELE 333 A UKUMEHAME 301 A ULUPALKUA RANCH 250 WAHIKULI 364 A	.75 3.81 .65 1.01 .45	•	:		.06	:	:	:	.04			.06		.02	.40		.03	:	.06	.03	.07	:	.42	.14	.04	•57	.07		:	:	.06 .32	3.81 · · · · · · · · · · · · · · · · · · ·
WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI 0AM 336 WAIKAMOI 390 WAILUKU 392	9.50	:	.49	.10	• 03	n T	•	•	.03 T	•	•	.37	.01	1.34	1.25	* .01	Ť	# T	.17	.04	.04	.01	.19	1.90	1.20	.03	.02 .83 .05	.01	:		.11	90 . 9.50 . 2.76 . .50 .
WAIDPAI RANCH 256 A  * * * 15LAND OF HAWAII	1.01								304			203						•	•		.51	**	*	•	111			,	•	*	.39	•
AHUA UM1 75 A	2.60						•				*			*	:		• •02	*	.03		# •08	:		. 29	.14	* 05	*	.02		:		2.60 . 1.97 .
AWINI 102-1 A EAST HONOKANE 183B A HAINA 214 HAKALAU 142 HALEMAUMAU 52 A	4,99 7.62 2.26 7.77	.38	.04	•	.28	.05	.78				.06	.05 .62	.01 .38	.24		:	*	.16	.07	.02 .66	.42	.50	.02 .43	.01	.02 .71	*05 •25	.03	.30	.15	.06	.34	7.62 . 1.55 . .50 .
HALEPOHAKU 111 A HAMANI VOLCN5 NP HO 54 HAWI 168 A HILO WB AIRPORT R	1.83 .52 3.71 1.72	.24	T .05		.09	•	.01	.02	° T	T	.19	.02 .05	.12 .02	.02	.04	.04 T	* *01	.17 .09 .02	.15	.04 .01	.07	.47	.17	.12 .25	.29 .13 .12	.01	.14	.48	.04	.07	.27	1.83 . *06 . .03 . 1.01 .
HOLUALOA 70 A HOLUALOA BEACH 68 A HONAUNAU 27 HONOHINA 137 HONOKANE 181,1 A	5.40 1.84 7.27 6.50	.33	1.47	•02 •36	*02 *10	.04	.02	.09	•02	•17	.02 .03	.34	.37 .02 .64	2.05 .39	# #06	.08	.05	.02 .15	.08	.08 .26	.06 .19	.04 .74	2.01 .57	* •10 •32	.06 .50	• 75 • 09 • 13	.01 .15	.02 .17	.05 .12	.10	.72 .30 .18	.20 .54
HONOMU MAUKA 138 HONUAULA 71 A HUALALA1 72 HUEHUE 92A  KAALA IK1 12 A	8.00 3.20 2.76 4.26	.44	*	**		.54		* * 1.51	.35	.02	.09	.16	.38	1.24	.01 	.10	* 3.10	.18	.19	.03	.12	1.08	.60	.05	.29	24 	.73	.40	.25 * * T	.03		.78 . 3.20 . 2.76 . .43 .
KAAWALOA 29 A KAINALIU 73B KALAPANA NO 1 67.8 KAMAOA NO 2 5 A	5.58 3.50 4.27	.10		.02 .16 .02		.03			•22			.04	.02	Ť	1.00	.22	2.00	.04 1.00	.01	.04 .06 .16	.15	18 .09	.02	.91 .05 .81	.10 .01 .28	1.70	.02 .03 T	.06	.03	.02	.37	.39 . .02 . .02 .

See Reference Notes Following Station In-

									D	A	IL.	Y I	PR!	EC	CIP	ΊT	A'	ΓIC	N												HAWA1 OCTOB	1 EP	1967
Continued	7							_				-			Day	of Me	onth	-					-		-								
Station		otal	. 1		0	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIRPORT KAPAPALA RANCH 36 KAPOMO LANOING 935 KAUMANA 88.1	A	3.29 2.57 4.65 8.52 6.79	.07 T	:17	3	4	.01	.02 1.42	*	e e	.15	.20 a	*18 *	.05	.03 T .20 1.77 1.64	.30 .23 .64		1.40	* .16	T48	.08	.13	T ***	T * *	1.38	.03 .05 .08	T # #09	.08	.03	* * * * * * * * * * * * * * * * * * * *	.32	.33 .26 .51	.69 .63 .28 .04
KAWAINUI LOWER 193 KEAAU 92 KEALAKEKUA 26.2 KEMENA 181.2 KEMENA PESEPVOIP 176.1	A A	4.87 7.50 6.22 4.72 4.09	* 37	* * 15	.22 .08	* 04 T	.05	.63 .07	T =	* T *		* .08	* .42 * .10	* •35		* 12 I.94 *	* 22 *	.11	.02	.11 T	.15 .06	.01 .01	1.72	.46	.51 .24 1.72	.02 .24	.68 1.84	.08	1.78 .12 .02	.04	.07	.01	.47 .
	A A A	3.12 7.40 1.69 2.32 1.76	* 64 * 8	05 06	.24	* 01	* .02 T	* *11	*	*	•	.02	.20 .06 .08	.34 .01 .02	.01	* 16 T	.02	•	.30 .01 .08	.43 .02	.04 .02 .03	.08 .01 .01	.76	.38	•12 •32 •21	1.29 .10 .05	.26 .03 .01	.01 .30 .13	.14 .03 .07	.21 *	.08	.03	.70 . 1.31 .
KOIAME LOWER 196 KONA AIPPOPT 68-3 KUKAIAU 222 KUKUIMAELE MIC 199 KUKUIMAELE MILL 206	A	1.66 1.31 1.50 2.26 1.82	.10	٠	•	•11	•	.10	•	•	•	* T	* •19	.04	.09 .01	•20	•	*	* *07 *06	.01	* 03	.02 .03	.06	.07	• 05 • 07	.17	.57 .20 .18	.05 .18 .12	.78	•12	.34	.02 .01	.02 . .75 . 1.40 . 1.10 .
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68 C MANUKA 2	A A	1.32 3.22 3.55 9.42 4.47	.26	.01	.05 .78	* •55 •05	* 02	.48		*	.05	.01	.06	.08	* 12 * T	.09 2.07	3,21	* •16 •28	.04 8	.05 1.50 .28	.04 .04	.20		*05	*06 *70	* *11	1.08 2.17	.08 .40	* 1.31 .08 .02	**	.23 1.48	•22	.17 .
MAUNA KEA BEACH MAUNA LOA SLOPE OBS MIOOLE HOLUALOA 68-1 MIOOLE PEN 147-1 MOAULA 16	A	1.97 1.67 2.17 1.37 2.67	*	*	*	* * *	*	:		*	:	:	•	*	.17	•35 •05	.61 .54	.01 .01	:	.05 .21 .01 .04	.08 .38	:	:	.11 *	.01 .29	.15 *	.53 *	.43	**	*	.32	.12 .16	2.67
MOUNTAIN VIEW 91 NAALEHU 14 NAPOOPOO 28 NAULU FOREST 38.6 NULL1 179	A A	9.93 2.79 6.19 3.75 1.87	.48 .07	.06	. 32 R	* •02	*	*	.27 .27 * T	. 08 *	.02 T .04	.02	.21 *	• 6 fi	2.97 .72 R 1.60		* T	2.86 T	.17 .51	• 47 T • 02 • 03		.08 *	.07	.92	.40 .11 * 1.03 .24	.56	.37 T	.03	•74 •41 • •17 •05	.14 * T	• 26	.05 2.37 T	.01 . T .
ODKALA 223 OPIHIHALE 2 24.1 OPCHIO LANO EST 91.5 PAAUHAU 217 PAAUILO 221	A	2.80 4.99 7.93 2.02 1.05	.22	.50	*17	*11	T *		.02 e	•34 R	T		.43 .02 .12	.01	2.87		T «	T .	T T *	.08 *	.01	.27	.08	.02	* 27	.16 .13 .09	•07 e •06	.02 .03	.02 .48 3.15	.20	. 28	.15	1.43 .
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144A PAPAIKOU MAUKA 140.1	A	3.80 9.22 7.90 6.55 7.92	.10	.01	.05	.04	.20 *	.14 e	.21 .03	1.08	R	.04 .05	.15 .46 .33	.28	.95 2.40 .60 1.38	.18	.05 * T	.48	.03 .14	.01 .09 .06		.16	1.37 * 1.10 1.20	.52	.85	• 15			.10 .22 .46 .22	.19	.06	.02	7.90 .
PEPEEKEO MAKA1 144 P11HONUA 89 POHAKULOA 107 PUAKO 95A PUUU K1HE 120	A	9.47 11.60 1.33 1.13 1.72		?	.90	•12 •01	*			*	R	.07 *	.25 *	* 86	.70	.69 .33	* •50	.02	***	.05	.78 * .12	• 34		.20	* 70	.30	1.62	.01	.25		*		11.60 .
PUU LAAU 102.1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82	A A A	1.64 4.50 1.08 9 4.57 3.56		. 13		:	*	.05 .04	:	*	*	.03	* * •03	* * *	.02 .54	e e •04	.03	:	* * .01		* * .01		37	* * * *	1.12			.04	.03		* * * * * * * * * * * * * * * * * * * *		1.64 • 4.50 • 1.08 • 8 1.81 • 2 .08 •
PUU WAAMAA 94.1 SAOOLE POAO 1 84 SOUTH POINT CORRAL 3 UMIKOA 118 UPOLU POINT USCG 159.2	A A	5.13 8.25 .92 1.32 1.15		•	.07	*	T .	1.05		*	:	.02	.01	:	* * 02	3.21	.09 *	:	* 02	* •32		4.00 .10		:	* • 36 • 01	.04		.01	3.20	:	•69 * •22		7 .95
WALAKEA SCO 88.2		8.96			.08	. 29							.58	. 5	3 1.97	т			.38	.57	.22	•19	.86	.36	•41	1.05	-31	•11	.05	.01	7		.40 .

### SUPPLEMENTAL DATA

		(	Win Speed -		)		Relat	ive hum	idity ave	rages -		Numl	oer of d	ys with	precipi	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MED!	DIAN T†	MF 8 PM	Trace	9010.	.10-49	50-99	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WR AIDDODT	21	1.4	6.0	15	F	08	80	71	6 A	ЫJ	6	5	7	5	1	1	25	43	6.5
HONOLULU. DAHII, WA ATREDRT	6	6.3	8.2	32	r	21	76	68	55	69	5	10	3	1	0	U	19	63	5.5
KAMOLOI. WAHI. WE VIOLUST	4	8.6	10.9	2.8	ŊF	24+	85	77	59	7.8	5	5	4	0	0	0	14	71	4.7
LIHHF. KAHAI. WA AIRPORT	5	8.1	10.6	21	Ε	22+	85	79	67	7.8	4	16	5,	1	0	0	26	65	6.0

	_			-					υ.	C II	-	11	7TAT	.F.L.			on.														стов	ER	1967
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	-		Of Mo		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Averag
* * *		- 1						- 1																				1					EG.
15LANO OF KAUA1																																	
KANALOHULUHULU 1075	MAX M1N	78 58	74 62	76 56	71 57	72 47	73 51	73 53	70 57	70 48	72 52	73 56	73 55	74 52	75 49	72 50	74	71 52	72 51	69 56	71 59	71 59	73 56	72 50	73	75 51	73 51	75 61		74 60	65		72.2
KILAUEA POINT 1133	MAX MIN	86 70	87 69	88	86 71	89 72	86 71	82 70	86 73	87 70	85 73	86 75	87 70	86 72	90 74	88	84 73	87 72	86 68	85 69	86 74	84 75	86 71	87 75	87 71	87 74	86 72	86 73	82 71	83 71	87 70	79	85.8 71.6
LIHUE WB AIRPORT	MAX M1N	85 74	84 74	85 76	85 73	85 70	83	83 67	83 70	83 70	8 3 75	84 75	84 73	84 69	84 67	85 70	84 69	84 72	85 71	8 3 7 2	82 74	84 75	8 <b>4</b> 7 2	84 67	84	85 71	84 74	84 72	83	86 68	81	80 65	83.8
MAKAHUENA POINT	MAX MIN	87 75	89 75	87 74	87 73	87 73	88 73	87 71	86 73	81 72	86	88 76	86 76	86 73	87 72	88 72	89 73	88 74	87 72	88 73	87 71	86 74	86 74	85 73	86 72	86 73	86 75	87 73	86 75	89 71	91 73	85 71	86.8 73.2
MANA 1026	MAX M1N	89 67	88 70	88 67	88 69	87 70	88 70	88 69	87 70	88	89 69	89 69	91 64	91 69	88 66	87 70	87 69	88 70	88 69	86 69	85 69	87 70	86 64	87 67	88 68	87 67	88 60	90 69	91 68	89 67	88 67		87.9 67.9
N1U R10GE 1035	MAX	88 67	87 66	86 68	87 66	87 66	88 68	88 67	88 68	88 67	86 67	88 68	89 67	89 67	88 67	88 67	90 66	90 67	88 67	85 67	84 67	85 67	88 68	8 9 6 5	87 61	85 64	87 65	86 66	85 65	86 65	87 65		87.2 66.2
WAIAHI LOWER 1054	MAX	84 65	85 66	82 68	84 65	83 65	85 65	82 67	83 64	80 65	80 66	81 68	82 65	84 63	85 60	85 65	83 63	84 65	83 64	82 66	80 68	8 O 6 6	82 67	84 63	82 65	82 65	82 65	82 69	82 67	85 64	8 1 65		82.6 65.3
15LANO OF OAHU																																i	
EWA PLANTATION 741	MAX	89 70	88 71	89 71	89 69	88 68	89 66	87 66	90 69	91 66	89 67	87 70	88 71	88 69	89 68	86 68	87 65	86 68	8 3 70	82 70	85 70	87 73	87 71	88 68	86 69	87 68	88 70	86 71	85 70	85 67	82 68	86 70	87.0 68.9
HONOLULU WBAP 703	MAX M1N	91 76	90 74	92 76	90 75	90 72	87 71	86 70	87 73	90 69	88 74	89 75	89 75	87 72	91 71	88 72	89 70	88 73	84 73	83 73	86 74	89 76	90 74	87 71	90 73	88 74	89 75	89 77	88 75	86 71	84 72	86 70	88.1 73.1
HONOLULU SUBSTA 704	MAX M1N	85 75	84 73	85 77	86 75	86 75	84 74	84 73	8 2 70								84 73	84 75	82 73	80 75	82 74	83 76	85 75	84 74	85 73	83 74	84 73	84 75	83 74	83 73	82 74	81 73	83.5 74.0
KAHUKU 912	MAX M1N		86 73	85 73	85 73	85 72	86 68			86 69	85 75	85 74	85 75	85 72			85 72	86 70	86 70	85 70	83 75			84 68	85 71	85 76	84 73	84 75			85 67	84 73	85.0 72.0
KANEOHE MAUKA 781	MAX M1N	84 73	84 73	84 73	85 72	85 70	85 70	96 70	85 71	81 69	85 70	85 71	84 72	83 72	85 71	85 72	85 70	85 71	83 72	79 69	80 71	81 73	87 75	84 69	84 69	82 71	84 71	84 73	82 72	82 70	85 71	82 71	83.7 71.2
MAKAPUU POINT 724	MAX M1N	80 73	80 71	81 76	81 73	81 70	82 76	83 74	82 70	81 76	82 72	81 71	81 75	81 72	85 72	83 75	83 73	85 74	81 76	79 73	80 71	80 76	79 72	80 71	83 74	81 73	80 70	82 76	80 72	81 71	84 76	78 69	81.3 73.0
OPAEULA 870	MAX M1N	80 69	8 I 6 9	81 67	82 66	84 66	82 65	88 64	88 66	83 67	87 67	84 68	81 69	83 68	88 67	87 66	85 65	87 65	85 67	85 65	87 68	79 69	80 69	82 65	83 65	82 65	80 68	8 2 6 8	86 72	81 68	82 69	82 64	83.5 67.0
PRI WAHIAWA 820.2	MAX M1N	84	86 67	86 69	87 68	87 65	89 63	89 63	88 63	88 63	87 64	87 69	86 68	87 65	89 66	84 64	88 61	88 63	85 66	83 67	80 68	80 67	83 69	85 64	85 64	85 65	8 4 6 4	86 69	85 67	84 64	87 64	84 67	85.7 65.5
WAIALUA 847	MAX M1N	86 68	87 67	87 67	88 66	87 65	91 63	86 64	85 67	86 70	89 65	87 66	8 <b>6</b> 66	85 66	87 67	91 67	87 65	88 64	88 66	87 67	84 68	83 68	85 68	87 69	86 65	86 64	85 65	86 69	84 69	86 67	89 67	83 67	86.5 66.5
WA1KIK1 717.2	MAX	90 75	90 72	89 74	90 70	91 68	92 68	88 68	90 72	89 67	90 69	88 74	89 72	89 70	88 69	92 72	89 68	89 70	88 72	84 72	83 73	87 69	88 68	89 70	88 71	88 73	8 9 75	89 76	90 75	88 70	87 69	85 72	88.6 71.1
* * *																																	
ISLANO OF MOLOKAI																																	
MOLOKAI AP 524	MAX M1N	84 70	86 77	85 74		84 72	86 67		85 68	81 69	83 69	83 72	84 73		88 70	86 77	87 67	85 67	83 73	81 70	79 71	82 71	83 73	83 70	85 70	84 70	82 71	84 70	83 72	83 72	81 74	84 71	83.7 70.9
15LANO OF LANA1																																	
LANA1 CITY 672	MAX M1N		8 2 6 7			82 64			84 67			77 67		78 65	80 64	78 66	79 64	78 66	76 67	74 65	77 67		78 68	78 65	78 64	80 66		78 65	76 66	79 67	81 67	77 65	79.0 65.7
1SLANO OF MAUI																																	
HALEAKALA R5 338	MAX MIN	68 54	73 50	65 49		65 43	66 40	64 46	65 51		72 57	67 48	66 44	63 46	65 47	63 42	63 42	62 44	62 49	60 49	59 49		63 46	65 45	61 48	64 48	57 48	64 51		67 46	64 46	63 49	64.5 47.3
HALEAKALA 5UMMIT 338.4	MAX MIN	59 45		55 38	56 37	57 43	60 45	54 42		58 42	61 46	58 50	67 53	60 44	56 52	55 49		56 43		48 38	47 39	51 39	49 38	55 35	59 39	59 36	48 38	51 41	57 43	58 42	58 42	55 43	55.9 42.3
HANA AIRPORT	MAX M1N	86 71	88 73	86 72		86 71	86 70	86 65	86 70	86 70	87 71		86 70		87 73		86 67	86 70		82 70	82 72		83 76	85 73	82 68	84 69	83 69	8 1 7 3	82 71	83 69	84 70	84 70	84.7 70.8
KAHULU1 WB AP	MAX M1N	87 74			86 66	83 63	84 64	85 62	85 68	89 62	86 71		88 66	89 68	88 68	88 64		86 64	83 70	81 75	85 73	86 73	86 70	88 67	88 70	86 73	87 71	84 67	87 67	83 68	86 69	81 72	85.9 68.5
KAILUA 446	MAX	82 69		81 68		81 66	81 63	81 69	81 63	82 62	82 69	80 69	81 69	81 69	81 65	82 67		81 63	81 63	82 63	74 63	76 67	79 67	81 64	83 65	83 66	81 66	79 67	77 66	77 65	81 64		80.5 65.8
KULA SANATORIUM 267	MAX M1N	76 59		75 59		73 55	74 56	74 56	74 57	73 56	76 56		76 57	76 58	76 60	76 57	73 57	74 58	73 60	70 62	69 63	76 60	75 59	74 59	74 59	75 58	74 59	76 60	72 59	73 60	72 61	71 61	74.1 58.5
LAHAINA 361	MAX M1N	91 74		89 71		89 70	90 70	87 69	88 71	87 68	88 69	91 70	91 70		89 71		87 69	90 71	86 74	83 73	83 72	88 69	90 73	89 69	92 70	88 68	89 71	89 72	88 70	87 71	82 70	88 72	88.3 70.8
WAILUKU 392	MAX M1N	89 70	89 71			88 69	88 64	88 64	88 67	88 67	88 68	86 70	87 70	90 68	88 68	88 64	88 64	87 69	86 70	83 70	79 69	86 70	87 68	86 65	87 66	88 68	86 68	89 68			85 66		86.9 67.8

									D	ΑI	LY	Tl	EM	PE	RA	T	UR	ES													VAII OCTOB	ER	1967
Continued											-					Day (	Of Mo	onth															age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
		-													-																		
ISLAND OF HAWAII																																	
MAINA 214	MAX	84 69	85 68	88	87 66	86 64	8 4 6 5	85 65	84 65	85 66	87 70	8 <b>7</b> 68	84 69	85 65	85 69	85 65	84 68	87 68	80 69	75 68	78 68	82 70	83 67	83 66	87 66	85 65	84 65	86 69	82 65	83 66	85 66	86 68	84.2 67.0
HAWAII VOLCNS NP HO 54	MAX M1N	74 56	72 57	73 55	71 55	73 52	77 54	74 51	73 54	77 55	74 56	74 57	72 58	74 59	69 55	71 53	71 49	75 56	70 58	71 57	70 57	67 57	65 55	71 54	72 55	72 55	72 56	69 56	69 55	71 54	70 56	70 55	71.7 55.2
HILO WB AIRPORT	MAX	86 70	86 69	84 68	90 68	88 67	86 69	85 67	88 64	87 69	86 70	84 71	86 72	86 72	86 69	85 69	87 66	82 70	83 71	82 71	84 71	85 71	86 70	85 70	84 71	83 69	83 68	82 69	84 70	88 70	86 72	76 71	84.9 69.5
KAINALIU 738	MAX	83 65	8 2 6 2	84 64	82 65	82 60	83 62	83 60	82 59	81 60	82 62	80 63	84 64	85 64	8 I 6 3	80 60	80 61	78 62	78 61	78 64	78 63	82 64	83 64	82 63	8 2 6 0	82 61	81 61	82 63	80 63	80 64	78 63	79 65	81.2 62.4
KAMUELA 192.2	MAX	75 61	75 56	75 58	77 60	78 60	83 60	80 50	77 45	81 48	77 53	76 62	76 62	77 60	82 55	80 57	76 50	83 53	75 62	69 62	70 62	76 62	75 59	76 52	80 55	75 60	72 62	75 61	73 61	78 62	78 62	79 62	76.7 57.9
KAMUELA AIRPORT	MAX M1N	79 56	80 62	76 60	76 61	76 59	78 60	78 60	79 56	80 64	77 50	78 54	76 59	76 59	77 58	78 56	78 54	79 51	74 55	69 59	71 59	75 58	76 58	78 56	76 56	76 55	75 59	72 59	74 58	77 62	76 54	77 59	76.4 57.6
KEAAU 92	MAX	85 67	85 67	85 67	85 65	86 65	87 65	87 64	87 64	87 64	85 67	87 68	85 68	85 69	85 64	85 64	85 64	85 65	83 69	87 67	83 68	84 66	84 66	84 66	88 68	87 67	83 65	83 68	87 67	87 67	87 67	86 68	85.5 66.3
KEALAKEKUA 26.2	MAX	8 2 6 5	82 65	82 65	82 66	82 62	82 64	82 63	83 62	81 62	82 64	84 64	84 65	84 66	84 65	83 62	82 63	81 65	78 68	77 65	78 65	8 2 6 6	8 3 6 5	83 65	84 63	82 63	82 64	81 65	81 66	80 66	79 66	78 67	81.6
KOHALA MISSION 175.1	MAX MIN	8 4 7 2	83 70	83 71	84 70	84 67	85 66	85 65	84 64	84 65	85 69	83 70	82 71	85 71	85 67	85 67	84 65	85 65	82 71	78 71	77 71	83 72	81 68	85 68	85 68	82 68	83 67	80 68	80 69	82 69	87 71	87 71	83.3 68.6
KONA AIRPORT 68.3	MAX M1N	85 71	84 72	84 71	85 71	84 69	86 71	84 69	86 68	85 69	84 64	85 64	85 64	87 64	86 70	85 70	86 65	85 70	85 71	86 67	86 68	86 69	86 70	83 70	87 66	85 64	86 64	85 64	84 67	85 68	84 67	84 66	85.1 67.8
KULANI CAMP 79	MAX	66	65 49	69 49	66 46	69 42	72 48	68 44	69 46	70 41	69 47	68 45	6.8 5.3	69 52	70 50	68 45	65 42	68 53	65 52		67 52	66 53	61 51	62 48	65 48	65 51	66 47	65 46	70 49	69 47	66 47		67.1 47.9
MAUNA KEA BEACH	MAX	90 73	93 75	92 73	90 72	90 72	88 71	8 8 70	89 69	88 70	90 67	90 <b>7</b> 0	90 74	90 75	89 73	88 69	88 71	89 73	84 73	80 74	83 74	91 76	94 74	89 72	89 73	89 74	89 71	86 74	88 71	87 73	89 73	86 73	88.6 72.3
MAUNA LOA SLOPE OBS	MAX	60 39	61 41	53 36	5 5 3 5	55 36	58 39	56 36	57 38	59 39	57 38	56 42	55 40	56 39	52 37	53 36	54 36	52 36	47 37	45 36	53 37	58 37	53 38	48 36	47 34	48 35	49 36	53 38	54 35	54 36	54 37	53 36	53.7 37.1
MOUNTAIN VIEW 91	MAX	79 61	80 62	82 61	78 59	82 56	84 56	83 57	83 58	84 60	8 2 5 9	82 62	79 63	80 64	80 61	80 59	82 57	82 56	78 61	76 63	76 63	77 64	76 61	79 63	78 62	80 62	79 60	78 63	78 63	78 63	80 64	8 1 6 1	79.9 60.8
NAALEHU 14	MAX	83 68	84 69	85 70	83 69	84 66	84 68	84 68	84 65	84 65	84 67	85 72	85 72	85 69	85 69	83 67	83 67	83 69	83 72	79 70	83 70	83 70	83 68	83 68	83 67	84 66	84 67	83 70	83 70	83 68	83 68	82 69	83.5 68.5
OOKALA 223	MAX	85 71	85 73	86 72	85 71	85 69	86 68	86 69	87 67	84 71	85 70	87 70	85 71	85 71	85 70	85 69	79 67	79 67	75 71	79 69	78 69	82 70	82 69	82 69	84 69	83 67	85 68	80 71	81 70	83 70	83 70	85 70	83.3
OPIHIHALE 2 24.1	MAX M1N	83 63	86 61	84 61	77 59	83 58	82 61	79 62	78 58	8 1 5 8	82 60	83 61	82 63	80 62	83 60	78 61	83 63	78 62	75 64	77 63	78 62	78 63	77 60	81 61	80 59	79 60		78 64	81 65	78 64	78 64	77 63	79.9 61.5
PAHALA 21	MAX M1N	84 66	8 4 6 5	85 65	81 62	83 61	83 61	83 64	83 68	82 64	81 62	85 66	85 65	8 <b>4</b> 66	79 65	80 62	80 62	83 62	81 65	77 67	81 66	82 69	84 68	82 65	83 64	8 2 6 4	88 64	84 65	84	8 1 6 7	83 66	79 66	82.5
UPOLU POINT USCG 159.2	MAX	85 72	86 75	86 71	85 70	86 74	86 69	86 73	84 71	85 70	84 75	85 73	85 72	85 72	88 71	87 67	85 68	86 67	83 75	86 74	79 69	84 70	83 70	82 69	86 69	84 71	78 70	84 74	84 71	85 70	88 69	88 72	84.8 71.1

### **EVAPORATION AND WIND**

Station																Day	Oí M	lonth															Total or Avq.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	No N
ISLANO OF KAUAI																																	
LIHUE WB AIRPORT	EVAP W1NO MAX MIN	.28 156 89 70	91	128	128	72 93	65 94	63	63	98 89	84 92	173 88	150 89	156 89	66 92	90 91	6 I 9 3	62 94	76 90	95	173 85	173 85	205 87	87	66 93	117	151	132	116	75 87	87	66	3374 89.6
ISLANO OF OAHU																																	
HONOLULU OBSERV 702.2	EVAP WINO MAX MIN	52 91	92	92	30 90	19	25 95	17	16	18	35	92	93	91	20 97	93	32 95	93	20 88	15 83		51 88	68 90	29 91	93	30 92	30 91	34 90	3 8 8 9	91	90	33 85	928 91•2
ISLANO OF HAWAII																																	
HILO «B AIRPORT	EVAP WINO MAX MIN	58 91	58 91	89	54 92	72	5 8 9 3	65 91	75 89	65 87	46 90	57	57 85	6 8 8 5	55	70 90	69 89	5 8 8 3	38 80	40 83	82	62 87	51 87	42 83	49 88	79 88	36 80	37 80	63 87	83	48 90	70 76 70	

## STATION INDEX

											~	4 IIIIDEW										OCTOBER 1967
STATION	INDEX NO.	DIVISION	DISTRICT	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION	TIP	ABLES	ID S	OBSERVER	STATION	INDEX NO.	DISTRICT	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION	T	SERVA TABLI	ES	OBSERVER
EAST LAWAI 934 EKW 3 RESERVOIR 1094+1 ELEELE 927 HALAULA 1110	0145 0240 0456 0465 0470 0935 1038	02 K 02 K 02 K 01 K	AWA1HAU OLOA OLOA AWA1HAU OLOA AWA1HAU IHUE AWA1HAU	2 2 2 1 2 1		159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28 159 41	1610 116 720 440 350 163 253 490 1218 800		7A 7A 7A 6A 7A 8A	c	MC BRYDE SUGAR CO. LINUE PLANTATION CO MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LINUE PLANTATION MC BRYDE SUG CO LTO LINUE PLANTATION LINUE PLA		3461 0 5286 0 5301 0 5704 0	DI LAHAINA DI LAHAIMA DI LAHAIMA DI LAHAIMA DI LAHAINA DI LAHAINA DI LAHAINA	1 1 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	157 00 157 00 156 55 156 53 156 55 156 55 156 55	1640 30 1620 3370 1430 1135 2040	7.4	W1 8A 7A W1 MO W1 WM	C C C C	DOLE COMPANY OOLE COMPANY DOLE COMPANY DOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
ILIILIULA INTAKE 1050 INTAKE WAINIMA PC 1086 KALIHIWAI RES 1131 KANALOHULUHULU 1075 KANEHA RESERVOIR 1092 KAPAA SIABLES 1104 KEALIA 1112 KEALIA 1112 KEALIA 1134 KILAUEA FIELD 17 1135	2222 2227 2974 3099 3104 3159 3982	02 L 01 H 01 H 03 W 01 K 01 K	IHUÉ ANALEI ANALEI AIMEA AWAIHOU AWAIHAU AWAIHAU AIMEA	2 1 3 1 1 1 3 1 1 1 1 1 1	22 02 22 09 22 11 22 08 22 08 22 05 22 06 21 58 22 13 22 11	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25 159 24	1070 690 400 3600 800 175 9 9 317 415	БА	7A W1 7A 8A 7A 7A 7A 8A 6A	s c c	LIMME PLIN CO LTD MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD KILAUEA SUG PLIN CO KANALONHUDULU R. S. LIMUE PLANTATION LIMUE PLIN CO LTD KERAMA SUGAR CO LTD KERAMA SUGAR CO LTD KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	AUWAN1-252 FIELO 46 474 MAELARU 477 MALEAKILA B E S 434 MALEAKILA B RS 339 MALEAKILA RS 339 MALEAKILA RS 339 MALEAKILA SUMMIT 338.4 MALEMAKUAPOKO 485 MANA 354 MANA 354	0541 0790 0995 0999 1004 1008 1016 1075 1086	D2 HANA D4 LAHAIMA LAHAINA D1 MAKAWAO D1 MAKAWAO D2 MAKAWAO D2 MAKAWAO D2 MAKAWAO D1 MAKAWAO D1 MAKAWAO D1 MAKAWAO D1 MAKAWAO D1 HANA	1 1 2 2 1 1 1 1 1	20 37 20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 55 20 55	156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8 A 8 A	7A 6A 8A 8A 5A 5A	c s	ULUPALANUA PANCH MAUI PINCAPPLE COMPANY U OF HAWAII EXP STA HALEARALA SANCH CO UALOF MICH MIT PARA PHILS SONT HICH MIT PARA HICH MICH MIT PARA HICH MICH MIT PARA HALA USSY PHILS SCOTI MAUL PINCAPPLE CO. HAWAIIAN COM + SUG CO HABRY HASEGAWA
KOLORO RES 1137 KUKUJULA 935 LIHUE VARIETY STA LIHUE 1020 LIHUE WB AIRPORT - 6	4650 4735 4742 4750 4756 4950 5560 5575	03 Wi 02 Ki 02 Ki 02 Ki 02 Ki 02 L 02 L	A1MEA OLOA OLOA AWA1HAU OLOA IHUE IHUE IHUE	3 2 2 2 2 2 2 2	22 02 22 04 21 55 21 58 22 11 21 54 22 01 22 59 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23 159 22 159 21	180 2150 36 240 640 737 100 375 207 103	м 10 м	8A PA PA 7A 7A 6A 7A 7A 10 8A	c ic	U S COAST GUARD KEKAMA SUGAR CO, KEKAMA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD KILAUEA SUG PLIN CO MC BRYDE SUG CO LTD HAWAIIAM SUGAR PL ASSN LIME PLIN CO LTO U S WEATHER BUREAU	HAMA AIRPORT HANAHULI 281 HOLUA CABIN 259.5 HOLUA CABIN 259.5 AHONOKOHAU 480 HONOKOHAU 493 HONOLUA FLO 49 494 IAO NEEOLE 387.2 KAHOMA HITAKE 374 KAHULUI WB AP	1125 1148 1552 1882 1887 1914 1935 2208 2552 2572	DI HAMA DI HANA DI HANA DI MAKKWAO DI LAHAINA LAHAINA LAHAINA DI MAKKWAO DI WALLUKU DI LAHAINA DI WALUKU DI WALUKU	1 1 2 4 4 4 1 3 4	20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 54	156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 38	61 325 6930 870 135 125 6280 1100 2000	11A	11A 7A MO MO 6A IIO WI	s c	HAMAIIAM AIRLINES KUALI RANCH HALEARALA NATL PARK RGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MALEARALA RANCH CO STATE DIVISION OF PARKS PIONEER MILL CO LTD U S WEATHER BUREAU
MARAMUENA POINT MARAWEII 965  MANA 1U26  M + M 1001 MOHIHI UPR CROSS 1083 MOLOAA 1145 MOUNT WAIALEALE 1047 NIU RIDGE 1035 N WAILUA RIVER 1055 PH WAINIHA 1115	6082 6097 6433 6529 6565 6850 6888 6893	02 W 03 W 02 L 01 L	AIMEA AWAIHAU AIMEA AIMEA IMUE	3 1 2 3 2 2	22 02 21 55 22 07 22 11 22 04 22 02 22 04	159 27 159 38 159 46 159 28 159 36 159 30 159 44 159 28 159 26	52 140 11 300 3500 330 5075 1250 1110 650	9A M	8A 7A 9A 1D 7A 6A 7A	S S	U S COAST GUARD OLOKELE SUGAR CO KEKAHA SUGAR CO LTO GROVE FARM COMPANY U S GEO SURVEY LINUE PLANTATION CO, U, S. GEO, SURVEY KEKAHA SUGAR CO LTD LINUE PLIN CO LTD HOL BYPOE SUG CO LTD MC 88YDE SUG CO LTO	KALLILLI 436 KALUA 410 KALUA 1NTAKE 375 KAUPO RANCH MOUSE 259 KEAHUA 410 KEAWAKAPU DEACH 260.2 KIHEI 311 KIPAHULU 258 KUKU 380 KUKU 380 KUKU 4816HTS 323.2	2679 ( 3433 ( 3576 ( 3910 ( 4091 ( 4193 ( 4489 ( 4634 (	DI MAKAWAO MAKAWAO LAHAINA DI LAHAINA DI HANA DI HAKAWAO MAKAWAO MAKAWAO DI HANA DI HANA DI HANA DI HANA DI HANA	1 2 3 1	20 51 20 54 20 53 20 39 20 52 20 50 20 42 20 47 20 39 20 54 20 47	156 16 156 13 156 38 156 08 156 23 156 10 156 27 156 27 156 04	2520 700 1585 1020 480 980 20 90 260 5788 2520	7A	MO 7A W1 5A MO 6P 7A 7A	c c s	E MAUI IRR CO LTO E MAUI IRR CO LTD PIONEER MILL CO LTD KAUPO RANCH HAWAIIAN COH + SUG CO E MAUI IRP CO LTD A. L. CORELL HAWAIIAN COH + SUG CO KIPAHULU CATTLE COMPANY MAUI PIMEAPPLE CO KENNETH MILLEY MAUI PIMEAPPLE CO
PRINCEVILLE RANCH 1117 PUEHU RIDGE 1040 PUHI 1013 RESERVOIR 6 1004 STABLE CAMP 1055.1 WAHIAWA 930	8165 8205 8217 8573 8694 8941 8949 8958 8966	01 HJ 03 WJ 02 L 02 L 02 KI 02 KI 02 KI 02 L	AMALEI AIMEA IHUE IHUE 1HUE OLOA OLOA IHUE IHUE	2 2 2 2 2 2 2 2	22 13 22 01 21 58 21 57 22 04 21 54 21 58 22 01 22 01	159 34 159 29 159 42 159 27 159 27 159 31 159 31 159 27 159 26	295 1660 329 420 740 215 2100 565 780	61	7A 7A 8A 7A MO 6A 8A	K K	PRINCEVILLE RANCH KERAHA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD LIHUE PLANTATION CO. MC BRYDE SUG CO LTD LIHUE PLTN CO LTD LIHUE PLTN CO LTD LIHUE PLTN CO LTD KERAHA SUGAR CO LTD	KULA SANATORIUM 267 LAHAINA 361 LAUNIUPONO INTAKE 376 A LAUNIUPONO VILLAGE 372 A LUPI UPPER 442 MAHINAHINA 466 A MALUHIA 482.2 MOKUPEA 475 NAKALELE -FLO 60-497 A	5006 (5177 (5404 (5408 (5665 (6521 (6645 (7040 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (6645 (6704 (6521 (	DZ MAKAWAO J4 LAHAIMA D4 LAHAINA D4 LAHAINA D1 MAKAWAO D4 LAHAINA D3 WAILUKU D4 LAHAINA	1	20 42 20 53 20 51 20 51 20 53 20 57 20 57 20 59	156 22 156 41 156 37 156 39 156 15 156 40 156 32 156 37	3004 45 1280 220 715 1040 129 340 4127	7.0	7A 7A VAR 7A MO 7A	c c	XULA SANATORIUM PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD E MAUI 1RR CO LTD PIONEER MILL CO LTO B OF A COUNCIL MAUI PINEAPPLE COMPANY MAUI DIMEAPPLE COMPANY
WALLUA KAI 1065 WALMEA 947 WEST LAWAI 931 ISLANO OF OAHU ALEA FIELO 625 761 BERETANIA PUMPING STA	9467 9629 9955 0111 0211 0300 0340 0350	02 L 03 W 02 K 03 E 03 E 01 K 01 K	IHUE AIMEA OLOA WA ONOLULU WA OOLAUPOKO OOLAUPOKO	3 2 3 1	21 25 21 19 21 25 21 39 21 26	159 21 159 41 159 31 157 57 157 51 158 04 157 56 157 47	50 20 210 455 20 680 20 13		8A 7A 8A 6A 7A 0A 65P 8A		LIMUE PLANTATION WAIMEA SUG MILL CO MC BRYOE SUG CO LTO WAIMHOLE WIR CO LTD BOARD OF WIR SUPPLY DEL MONTE CORPORATION RICHARO COBURN U OF M MARINE LAB	OLOWALU 296 OLOWALU 201CH 377 PARKEA 350 PAIA 406 PANILEIMULU 259.2 PAUWELA 490 POHAKEA BRIDGE 307.2 POLIPOLI SPRINGS 267.2A PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472	7059 7066 719- 756- 7674 7857 8060 8070 8336 844-	04 LAHAINA 04 LAHAINA 01 WAILUKU 02 HANA 01 WAILUKU 03 WAILUKU 03 WAILUKU 02 MAKAWAO	1 1 2 1 2 1 1 2	20 50	156 38 156 36 156 07 156 23 156 08 156 19 156 31 156 20	7 800 1260 170 3570 485 167 6150 2980 2500		VAR 7 M6A 64 64 W1 7 6 WAR MII 7 A	X	MAUL CO AATER DEPT PIONEER MILL CO. PIOMEER MILL CO. PIOMEER MILL CO. HADD IRR CO. LTO HAWAIIAM COM + SUG CO. HASEROT PINEAPPLE CO. MAILUKU SUGAR CO. STATE DIV OF FORESTRY E MAUL IRR CO. LTO PIOMEER MILL CO. LTD HAWAIIAM COM + SUG CO.
HONULUA 725.2  HONOLULU OBSERV 702.2  WHONOLULU WBAP 703  WHONOLULU SUBSTA 704  H S P A EXP STA 707  KAALAKE1 724.6	0507 0964 1384 1540 1918 1919 1924	03 E1 05 W1 05 E1 03 E1 02 H1 02 H1 02 H1	ONOLULU AIALUA WA	23 23 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21 21 21 21 21 23 21 23 21 33 21 24 21 19 21 20 21 19	157 50 158 02 157 54 158 00 158 06 158 00 157 55 157 52 157 52 157 54 157 54		M1   M		, cc ,	J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA AGR CO LTO H. V. VON HOLT U. S. COAST + GEODETIC U. S. WEATHER BUPEAU E. S.A. WEATHER BUPEAU H. S. P. A. EXP. STATIOM MRS. HILLIE ZAPATA	PUUNENE 396 PUU PARI 352 SPRECKELSVILLE 400.2 TWIN GATES 261.3 AUKULELE 333 UKUMEHAME 301 ULUPALAKUA RANCH 250 WAHIKUL 1 364 WAIEHU CAMP 484 WAIHEE VALLEY 462	8543 8553 8688 8742 874= 8750 8750 8750 9275 9315	D3 WAILUKU D1 HANA D3 WAILUKU D3 WAILUKU D1 MAKAWAO D1 MAKAWAO D4 LAHAINA D4 WAILUKU D4 WAILUKU D5 WAILUKU D5 WAILUKU D5 WAILUKU D5 WAILUKU D1 HAMA	3 3 1 2 2 3	20 53 20 46 20 54 20 46 20 48 20 48 20 39 20 54 20 55 20 57 20 57	156 27 156 03 156 25 156 23 156 15 156 24 156 40 156 31 156 32 156 32	60 2160 85 1310 5230 75 1900 580 320 300 1200		7A 8A VAR 7A 8A 8**	r	HAWAIIAN COM + SUG CO EAST MAUI REPIGATION C HAWAIIAM COM + SUG CO KAONOQUU RANCH HALEAKALA RAMCH CO PIONEER HILL CO LTO ULUPALAKUA RCH CO LTD PIONEER MILL CO LTD WAILUKU SUGAR CO WAILUKU SUGAR CO E HAUI IRR CO LTO E HAUI IRR CO LTO
KANUKU 912 KALUH IRE STA 791.3 KALIHI RES SITE 777 KAMEHAME 724.7 KANEOHE MAUKA 781 KAPALAMA 773 KAPALAMA 773 KAPALAMA 773 KAPALAMA 1841 KAPALAMA 1811 NITAKE 883.22	2570 2683 2960 3056 3113 3123 3220 3268 3734	01 K6 01 K6 01 K6 01 K6 01 K6 01 K6 01 K6 02 H6 05 W6	OOLAULOA OOLAUPOKO OOLAUPOKO OOLAUPOKO OOLAUPOKO OOLAUPOKO OOLAULOA ONOLULU AIALUA AIALUA	1 1 1 1 2 5 5	21 41 21 24 21 23 21 19 21 25 21 23 21 36 21 21 21 35 21 35 21 36	157 57 157 45 157 50 157 41 157 49 157 47 157 54 157 52 158 11 157 59	25 10 910 1380 225 365 10 614 20 1180	7 h	7A 8A 1D 7A 8A 8A 7A WI	K K K	WAIAHOLE WTR CO LTO RAHUKU PLIN CO RAILUA FIRE STATION BOARD OF WTR SUPPLY HAWAII MATIONAL GUARD STATE HOSDITAL KANECHE RANCH CO GEORGE H. SWIFT KANEHAMEHA SCHOOLS WAIALUA AGR CO LTD WAIALUA AGR CO LTD	WAIKAMOI DAM 336 WAIKAWU 390 WAILUA IKI 348 WAILUKU 392 WAIDPAI RANCH 256 ISLAMD OF MAWAII AHUA UMI 75 AWINI 18241 FAST MONOKAMF 1838	9335 9376 9460 9484 9765 0040 0190 0450	DI MAKAWAO WAILUKU DI HANA DI WAILUKU HANA DI MKOMA DI N KOMALA DI N KOMALA	1 3 1 3 2	20 49 20 52 20 48 20 54 20 38 19 38 20 10 20 07	156 14 156 31 156 09 156 30 156 12 155 47 155 43 155 43	4320 470 2630 200 220 5220 1870 4240	8=	MO W1 HO	5	MAUL COUNTY WIR DEPT WALLUNG SUGAR CO EAST HAUL IRRIGATION CO ST. AMTHONYS BOYS SCH HALEAXALA RAMCH CO GREENWELL RANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTD
KAWELA MAUKA 906.3 KEMOO CAMP 8 855 KOGLAU CAM 833 LUALUALEI 804 LUALUALEI WTR TUMNEL A LUI, JKU 781.7 LUNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAHA VALLEY 800.1 MANOA 712	4766 564 5650 5655 567 576 5781 5800	04 Wi 04 Wi 01 Ki 02 Hi 04 Wi 04 Wi	OOLAUPOKO AIALUA AHIAWA AIANAE AIANAE OOLAUPOKO ONOLULU AIAMAE OONOLULU ONOLULU ONOLULU	4	21 29 21 24 21 17	158 00 158 05 157 58 158 08 158 08 157 49 157 42 158 13 158 12 157 39 157 49	1050 725 1160 113 1500 240 40 25 160 538 220	8 1	7A 8A 7A w1 7A 7A 8A 8A	c c	MANALI MATIONAL GUARD WAIALUA AGR CO LTO C + F OFFICER HEOG USM AMMUNITION DEP US MAYY MIL NOR LUM LUMALILO HOME CAPITAL IMPEST CO CAPITAL IMPEST CO U S COAST GUARD HIPS-CHOME HAFRAUMONT	MALEPIULA 117 MALEPOMARU 111 HAWAII VOLCINS NP HU 54 HAWI 168 AILO WB AIRPORT R HOLJALOA 70	0905 1033 1060 1065 1303 1339 1492 1557 1562	DI HAMARUA 2 S HILO 33 KAU DI HAMARUA 2 HAMARUA 22 KAU DI N KOHALA 02 S HILO 04 N KONA 4 N KONA 64 S KONA	2 2 1	19 43 19 38 19 37 19 27	155 28 155 16 155 50 155 04 155 55 155 59 155 53	461 105 3648 5770 9220 3971 600 27 3220 14	8A M10	7A 7A MO MO BA 7A MID H	10k J	HONOKAA SUGAR CO PEPERKEO SUGAR CO. HAWAII NAT PARK KURAIWA RAMCH CO STATE DIV. OF PARKS HAWAII NAT PARK KOMALA SUGAR CO U.S WEATHER BUREAU STATE OIV. OF FORESTRY VARIOUS RAMCH HAMDS MRS MALAE W HUA
MANDA TUMMEL 2 716 MAUNAWILI 1787-1 MOAYALUA 770 MOUNT KAALA 844 NUUANU RES 4 783 NUUANU RESERVOIR 5 775/ OPACULA 870 PALOLO VALLEY 718 PAUDA FLATS 784 PEARL CITY TERCE 754-1	6130 6222 639 655 6928 6933 7150 766 7810 7933	02 HG 01 KG 02 HG 02 HG 02 HG 05 WJ 02 HG 03 EG	ONOLULU AIANE ONOLULU ONOLULU AIALUA ONOLULU ONOLULU ONOLULU ONOLULU WA	2 2 2 5 2 2	21 20 21 21 21 21 21 21 21 21 21 21 21 21 21 34 21 20 21 21	157 48 157 46 157 54 158 09 157 49 157 50 158 02 157 46 157 48 157 58 157 43	650 410 20 4025 1048 410 1060 995 1640 240	7 M M M	9A 1D AR 7A 1D 10	c	MRS.JOHN H.SEAUHONT BOARD OF VIR SUPPLY EXP. STA. H.S.P.A. JOHN A POXBURGH FEDERAL AVIATION ADM- BOARD OF WIR SUPPLY WATALUA AGR CO LTD BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAMES MUMBEMO	HOROMU MAUKA 138 HONDAULA 71 HUALALA1 72 HUEHUE 92A KAALA 1KI 12	1864 (1960 (2047 (2151 (2156 (2249 (2327 (2512 (2751 (	02 N HILO 1 N KOHALA 22 S HILO 34 N KONA 4 N KONA 4 N KONA 33 KAU 4 N KONA 33 KAU 54 N KONA 55 HILO	2 1 2 4 4 4 3	19 56 20 09 19 51 19 40 19 42	155 44 155 09 155 53	300 800 1100 6250 8190 1960 1340 3700 1500		7A 7A 7A H: 6A 7A 8A 7A VAR	,	MRS MALAE W HUA PEPEERED SUGAR COMPANY KOMALA DITCH CO LTD PEPEERED SUGAR CO. STATE DIV OF FORESTRY HUEHUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELL P. SMITH KUMA EXPERIMENT STA HAWAII VOLCAMOES AND PA. MANAII VOLCAMOES AND PA. MANAII VOLCAMOES AND PA. MANAII VOLCAMOES AND PA.
PORTLOCK ROAD 724-4 PRI WAHIAWA 820-2 PUNALUU 884 PUNCHBOWL CRATER 709 ST STEPHEMS SEM 788 TANTALUS PEAK 780 TANTALUS 2 780-5 WUNIY OF MAWAII 713 WAHIAWA DAM 863 WAIAHOLE 837 WAIALOE 8474LA 715	8172 8310 8316 860 8730 8738 8815 8945	05 01 K0 02 H0 02 H0 02 H0 02 H0 05 W/ 01 K0	ONOLULU  OOLAULOA  ONOLULU  ONOLULU  ONOLULU  AM JAWA  ONOLULU  ONOLULU  AM JAWA  ONOLULU  ONOLULU	2 2 2 2 5 1	21 28 21 35 21 19 21 22 21 20 21 20 21 20 21 30	158 01 157 54 157 51 157 47 157 49 157 50 157 49 158 03	700 20 360 488 2000 1325 79 854 745	8.A	5P 8A 8A 7A 7A 8A 7A 8A	0 2200	GEORGE L. BRENNER PIMEAPPLE RESEARCH INST. KAHUKU PLTH CO NAT MEM CEMETERY REV R CULLIMAN BOARD OF WATER SUPPLY R. E. WHITE DEDT. OF GEOSCIEMCE WAIALUA AGR CO LTO WAIAHOLE WIR CO LTO SPENCER ITHNER	KAMADA NO 2 5 KAMUELA 192-2 KAMUELA 192-2 KAMUELA AIPPORT KAPAPALA RANCH 36 KAPOHO LANDING 935 KAUMANA 88-1 KAWAINUI LOWER 193 KEMANU 2000 KEMANU 22-1	3048 (3077 (3078 (3300 (3369 (3770 (3872 (3925 (3977 (3925 (3977 (3925 (3977 (3925 (	D3 KAU D1 S KOMALA D5 S KOMALA D3 RAU D2 PUNA D1 HAMAKUA D2 PUNA D2 PUNA D3 KAU D4 KAU D4 S KONA	2 2 1 2 3 4	19 02 20 01 20 00 19 17 19 30 19 41 20 05 19 38 19 14 19 30	155 40 155 40 155 40 155 27 154 52 155 09 156 39 155 02 155 29 155 55	1375 2670 2665 2140 290 1123 1080 280 1700 1450	6A 8A 8A	WE		HAWAIIAN RANCH CO PARRER RANCH HAWAIIAM AIRLINES HAWAIIAM RANCH CO. INC. BOARD OF WATER SUPPLY SHIGEO MASUYA HONOKAA SUGAR CO PUMA SUGAR CO HAWAIIAM AGRI. COMPANY MISS ANY GREENWELL
WAIALUA 847 WAIANAE 798 WAIANAE MAUKA 803 WAIAAA 836 WAIKANE 885 WAIKIKI 717-2 WAILUPE RESERVOIR 170 A WAILUPE KLY SCH 723-6 WAIWANALO 794 WAIWA 802	9195 9231 9238 9261 9340 9397 9495 9500 9521 9593	05 W/ 04 W/ 03 Ex 01 K0 02 H0 02 H0 01 K0 05 W/	AIALUA AIANAE HA OOLAUPOKO ONOLULU DNOLULU ONOLULU OOLAUPOKO AIALUA	4 3 1 2 2 2 1 5	21 27 21 29 21 28 21 30 21 16 21 18 21 18 21 18 21 21	157 47 158 07 158 11 158 09 157 56 157 53 157 49 157 45 157 45 157 45	1575 800 760 10 170 180 60 420	8A	7A 7A 8A *1 *1 *1 8A *1 8A	c	SPENCER TINKER WAIALUA AGR CO LTO CAPITAL INVEST CO CAPITAL INVEST CO HAIANOLE WTR CO LTO MAIANOLE WTR CO LTO MONOLULU ZOO BOARD OF WTR SUPPLY MAILUPE VALLEY SCHOOL ST DIV WTR + LAMO DEV MAIALUA AGR CO LTO	KEANAKOLU CAMP 124-2 KEHENA RESERVOIR 176-1A KIOLAKAA A + F 6 KIPA 89-2 KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175-1 KOIAWE LOWER 196 KONA ALRPORT 68-3	4098 (4245 (4250 (4625 (4632 (4670 (4675 (4685 (4764 (	D2 HAMAKUA D1 N KOHALA D1 N KOHALA D1 S HILO D1 N KOHALA D1 N KOHALA D1 M KOHALA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19 55 20 07 20 10 19 04 19 44 20 14 20 13 20 14 20 05 19 39	155 45 155 48 155 38 155 09 155 47 155 47 155 48 155 38 156 01	5280 3840 2520 1925 1490 309 960 537 720 15	7A 8A	WI 7A Mo WI 8A 7A 7A WI 8A	-	STATE DIV. OF FORESTRY KOHALA DITCH CO LTD NOHALA DITCH CO LTD STATE DIV OF FORESTRY MAUMA KEA SUGAR CO. KOHALA SUGAR CO KOHALA SUGAR CO KOHALA SUGAR CO HOMONAA SUGAR CO HAWAIIAN BONO HOMONAA SUGAR CO
WALPAHU 750 WILHELMINA RISE 721 ISLANO OF MOLOKAI KALAUPAPA 563 KANALO MAUKA 542.6 KAUNAKAKAI 536 KAUNAKAKAI MAUKA 536.5 KEONELELE PENS 551 KUALAPAU 534	9738 9980 2896 3046 3541 3547 439-	03 EV 02 HO 01 MO 01 MO 01 MO 01 MO 01 MO	NA DONOLULU  DLOKA1  DLOKA1  DLOKA1  DLOKA1  DLOKA1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 12 21 12 21 04 21 06 21 06 21 12 21 09	158 01 157 47 156 59 156 52 157 01 157 01 157 12 157 02	30 60 12 70 560 878	М	PA SA	c	OAHU SUGAR CO BOARD OF WTR SUPPLY KALAUPAPA SETTLEMENT W. J. CARSTEM MOLOKAI RANCH LTO MOLOKAI GENEFAL MOSPITA MOLOKAI ANCH, LTO. DEL MONTE CORPORATION H. S. P.A.	KUKAIHAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MIL 200 KULANI CAMP 79 KULANI SCHOOL SITE 78 A KULANI SCHOOL SITE 78 A LALANILO FLO OFF 191-1 LANIHAU 68 C LAVA TREE PARK 66-1 MANUKA 2 A	4928 0 4938 0 5011 0 5018 0 5021 0 5260 0 5330 0 5460 0	S KOHALA N KONA PUMA	2 5 2 1 4 2 3	19 35 20 01 19 40 19 29 19 07	155 21 155 35 155 34 155 18 155 27 155 20 155 41 155 58 154 54 155 50	840 980 300 5170 8300 5735 2615 1530 650 1760	AB	6A 6A 8A W1 W1 RA	* * *	HAMAKUA MILL CO HONOKAA SUGAR CO HONOKAA SUGAR CO SY DEPT OF SOCIAL SER U S WEATHER BUREAU  ST OEPT OF SOCIAL SER STATE DEPT OF L + N RES KONA EXPERIMENT STATIOM STATE DIV. OF PARKS STATE DIVISIOM OF PARKS
MADULENU 542 HAUNALOA 511 MOLOKAI AP 524 PUUOHOKU RANCH 542+1 WAIKOLU 540	6138 6190 6534 8549	01 MC	DLOKAI DLOKAI DLOKAI	1 1 1 1 1 1	21 04 21 08 21 09 21 09	156 48 157 13 157 06 156 44 156 55	20 1075 450 700 3550	88	9A 9A 8A 5A		H S P A LIBBY HCNEILL + LIBBY ALOHA AIPLINES PUUDHOKU RANCH MOLOKAI RANCH	MAUNA KEA BEACH MAUNA LOA SLOPE OBS MIDDLE HOLUALOA 68-1 MIDDLE PEM 147-1 A MOAULA 18 A	6180 0 6198 0 6268 0 6270 0 6407 0	4 S KOHALA 5 HAMAKUA 4 N KONA 1 N KOHALA 3 KAU	5 4	19 32 19 37 20 06	155 50 155 35 155 58 155 50 155 30	103 11146 475 1380 600	M10	8A MIO 8A VAR MO		U S MEATHER BUREAU U S MEATHER BUREAU KONA EXPERIMENT STA KAMBA RAHCH HAWAIIAN RAMCH CO

																	_			OCTOBER 1967
STATION	DIVISION O	DRAINAGE 1	LONGITUDE	ELEVATION	T	ERVA ME A TABLE	ND S	OBSERVER	STATION	INDEX NO.	DIVISION	DISTRICT	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION	TI	ME A	es .	OBSERVER
ISLAND OF PAWAII  WOUTSTAN VIEW 9  HARLING IN 8  HARDOPPOO 28  HIGHI 1777  HAULU FORECT 38-0  HIGHI 1777  PAWAILU 277  PAW	0-552 02 PUNA A 8-588 03 KAV A 8-588 03 KAV A 8-697 04 5 KONA 6-690 03 N KOVAKA A 8-600 03 N KOVAKA 7 18-5 07 80NA 7 718-5 07 80NA 7 718-5 07 80NA 7 718-7 09 RAMAKUA 7 78-7 09 RAMAKUA 7 78-7 0 PUNA 8 18-8 0 S FILO 8 8 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9 8 9	19 0 19 2 2 19 1 2 20 0 19 1 2 19 3 1 20 0 1 20 0 1 20 0 2 19 4 2 19 4 2 19 4 2 19 4 2 19 4	33 155 07 144 155 35 19 155 35 19 155 08 1 155 17 10 155 17 10 155 17 10 155 17 10 155 22 10 154 57 12 155 28 17 155 08 17 155 105 17 155 105	673 395 1400 1270 445 445 460 670 670 5000 200 1270 1730 6511	6.A	8A 7A VAR 6A 7A 7A VAR 7A 7A	F	PUNA SUGAR CO HUTCHINSON SUGAR CO KONA EAPERHEAT SIA PR HAMALI VOLCHARSON MIT PK HAMALI VOLCHARSON MIT PK LAUPANCHOE SUGAR CO HISS CLEONARO BUANO OF MATER SUPPLY HAMALIAN HAMALON HAM	PUU LAAU 102-1 PUU LEHUA 73 PUU MALI 113 PUU WALI 116 PUU OO 82 PUU WAAWAA 94-1 SADDLE ROAD 1 84	A 8452 A 8460 A 8515 8548 8550 8555 A 8675 8679 6780 8830 9025	05 04 01 01 02 05 02 03 03 03	HAMAKUA	1 1 1 2 2 5 2 3 3	19 50 19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15	155 36	3420 1050	8.4	NO MO MO MO MO TA 6A 7A WH WI	c	KUPATAN RANCH CO STATE OTV OF FISH-GAME GREENWELL RANCH EURALAU RANCH CO EOHALA OTTO-C COLTO DILLINGHAN RANCH CO DILLINGHAN RANCH IN GOARO OF WIT SUPPLY HUTCHINSON SUGAR CO FECERAL ELECTRIC CORP KURATAN RANCH CO US COAST GUARO SHINICHI KANESHIRO KANUA RANCH

↑ DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN
5-NORTH-CENTRAL MOLOKAI: 1-(NO INTRA-ISLAND DIVISIONS) LANAI: 1-(NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN
2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Servicee Administration Regional Climatologist, P. O. Box 3650, Honolulu, Bawaii, or to any Weather Bureau Office near you. Additional precipitation data are contained in "HOURLY PRECIPITATION DATA HAWAII".

DIMENSIONAL UNITS: Unless otherwise indicated, disensional units used in this bulletin are: Temperature in "F., precipitation and evaporation in inches, and wind evessed in miles. In "Supplemental Data" table directions entered in figures are tons of degrees. Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME. Data in the "Wonthly Extremee", "Dally Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Index. The Station Index shows observation time in local

EVAPORATION is measured in the standard Weather Eureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Hawaii state key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- . And also on an earlier date or dates
- ++ Bighest observed one minute windspeed. This station is not equipped with an instrument to measure fastest mile data.
- . Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station Index"; indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for dates of measurement. Where gages are read only once monthly, measurements made on the first of a wouth are credited to the last day of the preceding month.
- B Adjusted to a full month
- J "Supplemental Data" table
- H One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record
- T Trace, an amount too small to measure
- V Includes total for previous month.

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

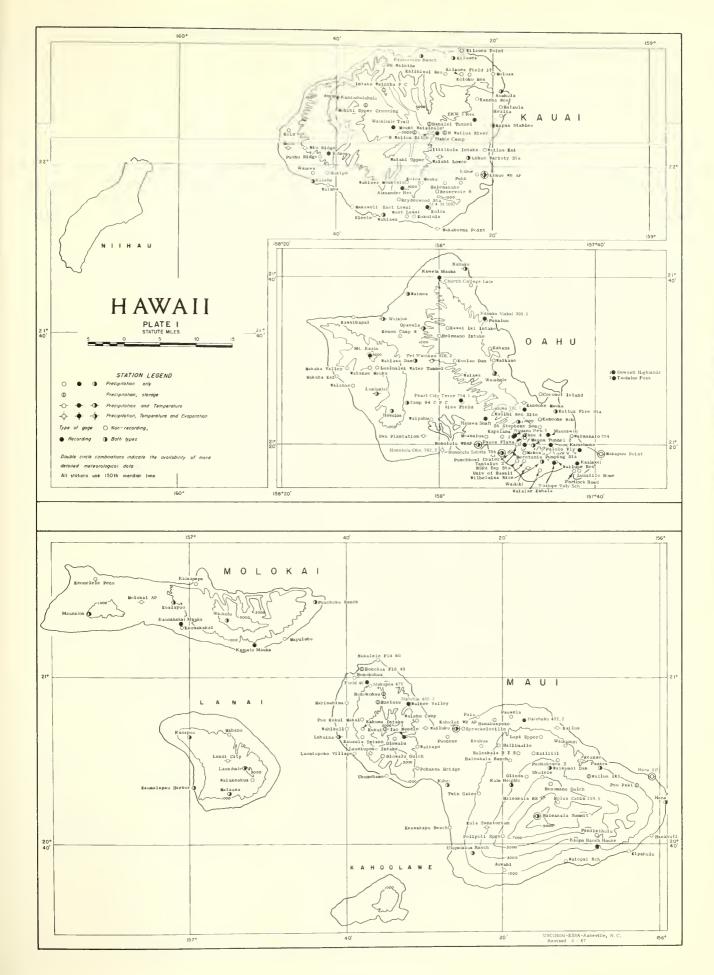
- AR Observation made after rain.
  - in Systiat Column of Station index indicates Recording Bain Gage Station. Hourly precipitation values are processed for special purposes, and are published in the 'Rourly Precipitation Data' builded and are published in Cilinationgical Bata' buildent in they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" builded.
  - MO Gage read once monthly, usually on the last day
  - OC Gage readings at periods varying from a few weeks to several months.
  - 3 Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset
- VAR Observation time to variable
- el Gage read weekly or irregularly only.
- WM Oage read weekly and last day of month
- # Thermowstere are generally exposed in a shelter located a few feet above cod-covered ground; however, thic reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

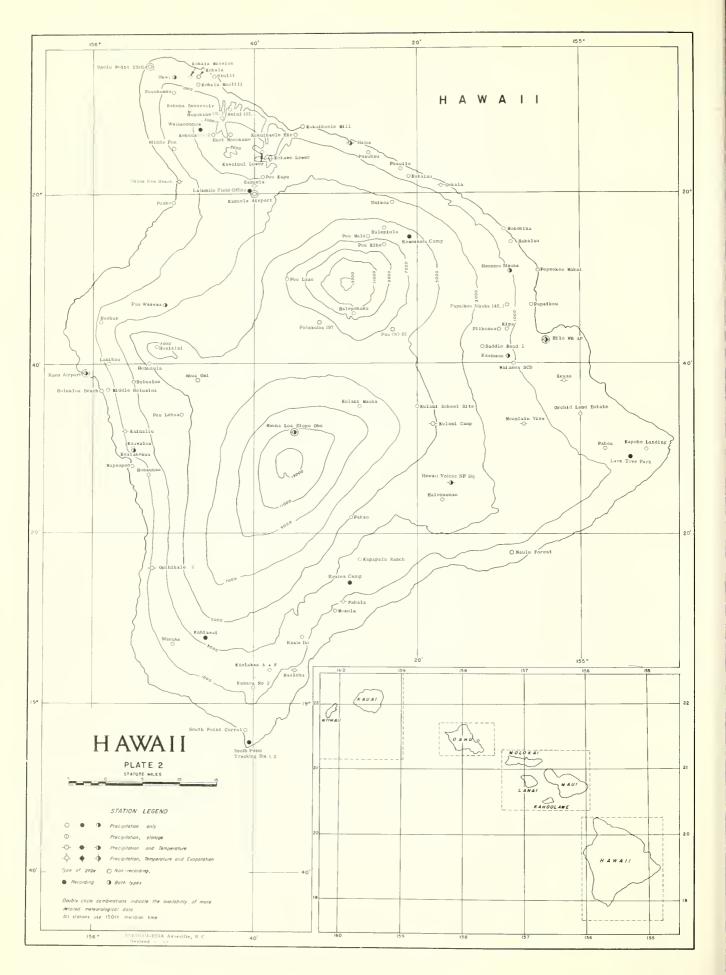
Stations appearing in the ladex, but for which data are not listed in the tables, were either miching or received too late to be included in this issue. General weather conditions in the U. S. for each month are dwacribed in the publications MONTHLY MEATHER REVIEW MONTHLY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM BOTA, all of which may be obtained from the Superintendent of Documents, Government, Green, Control of the Manhington, D. C. 2046.

Information concerning the hietory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Sittory" for this State, price 40 cents. Similar information for regular Neather Bureau stations may be found in the latest annual jesue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Documents at the address shown above.

Subscription Price 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be sade payable to the Superintendent of Documente. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Mashington, D. C. 20402.

USCORM-ESSA-ASHEVILLE-1/31/68-890







CLIMATOLOGICAL

U. S. DEPARTMENT OF COMMERCE SALEXANDER B TROWBRIDGE SALEXANDER B TROWBRIDGE SALEXANDER 
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

ENVIRONMENTAL DATA SERVICE

MAR 19 1968

HAWAII

NOVEMBER 1967

Volume 63 No. 11

# CLIMATOLOGICAL DATA

Taulon   T													1	5	シー				les,	-/					
Machine   Mach			Temperature										,			ECU		100	Pheci		61				
184.00 Of CAUAL	Station					Į.						_			-1	00	. &			Sho				-	
ARABOLILI UI DIT   A			Averoge Moximum	Averoge	Average	Deporture From Norm	Highest	Dote	Lowest	Dote			-	- 1	-	Total	Deporture From North	eofest	Dote	Total	Mox. Depth on Ground	Dote	ò	6	1.00 or More
Example																									
LINE WE SERV TOTAL PRINCELLU MESERV TOTAL PRI	KANALOHULUHULU 1075 KAPAA STABLES 1104 K1LAUEA FIELO 17 1135	A												-		11.13 6.67 12.34		5.00		.0 .0	0			3	2
Distribution of the property	LIHUE WB AIRPORT MANA 1026 N WA1LUA OITCH 1051		79.9 84.9													4.43 1.64 26.44	10	1.31	26	.0	0		3	3	1 0 6
ISLANO OF CAMU   ISLANO OF MALIX	PUEHU RIOGE 1040 WAHIAWA 930 WAIAHI LOWER 1054	A	77.8	63.3	70.6		81	190	58	17+		0	0	0	0	7.18 17.59		4.50	24	.0	0		19	7	1 5 0
HONCLULU DESERV 702.2 HONCLULU WEAP 703 R	ISLANO				70.9									ĺ		11.15				•0					
RANDICULU USES 703																									
MARCHUP 071NT 724 NULMAN URSS 7833 OPACULA 870 PALOLO VALLEY 718 PRI WAHTAMA 820.2 POLULA 1870 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PUNALUU 884 MAHTAMA 620.7 PALOLO VALLEY 718 PRI WAHTAMA 820.2 PALOLO PA	HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781	R	82.3M	71.0M	76.7M	1.9	84	1	65	20		0	0	0	0	2.78 3.52 18.34	13.00	1.10	24	.0	0		5 18	7	0 1 5 6
PUNALUU 386 WANIANO 608 863 WA	MAKAPUU POINT 724 NUUANU RES 4 783 Opaeula 870		1			1.7										1.45 12.84 8.82	3.53	3.72	27	.0	0		17	8	1 0 3
MAIKIKI 717.2 MAIDAHU 750  A  B5.2  68.9  77.1  90  6  62  28  1  0  0  1.01  3.03  .47  .20  17  .0  0  0  3  0  1.01  3.03  .47  .20  17  .0  0  0  3  0  1.01  3.03  .47  .20  17  .0  0  0  0  3  0  1.01  3.03  .47  .40  0  0  0  1.01  3.03  .47  .40  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  0  1.01  3.03  .47  .40  0  0  0  0  0  0  0  0  0  0  0  0	PUNALUU 884 WAHIAWA OAM 863 WA1AHOLE 837					.3										4.45 4.96 11.95			26	.0			6	2	2
ISLANO OF WOLOKAI  KUALADUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524 MAUNALOA 511 MOLOKAI AP 524  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  ***  ISLANO  **  ISLANO  ***  ISLANO  I	WAIK1KI 717.2		85.2	68.9	77.1		90	6	62	28		1	0	0	0	1.01		.20	17				3	0	0
STANO OF MOLOKAI   Standard   S		A			74.2												• •								
MADULEHU 542 MADUNALOA 511 MOLOKAI AP 524  ISLANO  * * * TISLANO  * S * TISLANO	* * *																								
## ## ## ## ## ## ## ## ## ## ## ## ##	MAPULEHU 542 MAUNALOA 511	A	80.4	69.6	75.0		84	20+	64	15+		0	0	0	0	3.77 .63 1.19	- 2.1	2 .7	7 17					0	0 0 0
ISLANO OF LANAI  LANAI CITY 672  TSLANO  ** * *  ISLANO  ** *  ISLANO  ** * *  ISLANO OF MAIL  ** *  ISLANO  ** * *  ISLANO  **	ISLANO				75.0											2.03									
ISLAND  * * * * 1 ISLAND  * * * * 1 ISLAND																									
15LANO  * * * * 15LANO OF MAU1  HALEAKALA BE S 434 A MALEAKALA RS 338 S 80.5 71.1 75.8 80.5 71.1 75.8 83 13 0 0 0 0 7.28 1.08 2 0 0 16.6 6 14.5 6 14.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	LANAI CITY 672		76.0	64.8		1.8	79	22	61	14		0	0	0	0			1.83	2 25	1			6	2	2
15LANC OF MAU1  MALEAKALA BE 5 434 A HALEAKALA R5 338 S1.8 S1.8 S1.8 S1.8 S1.8 S1.8 S1.8 S1.					70.4											4.31									
HALEAKALA R5 338																									
KEANAE 346 KEANAE 346 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361  PAIA 406 WAILUKU 392  82.4 66.1 74.35 89 19 62 16 0 0 0 0 0 2.9370 15.4551 13.61 -	HALEAKALA RS 338 HANA AIRPORT HONOKOHUA 493	А	80.5	71.1	75.8		83	19+	58	14		0	0	0	0	7.28 9.89 4.68 1.69	1.3	1.01 3.44 7 .5	8 2 4 25 1 1	.0			16 16	5	5 1 2 0
PAIA 406 WALUKU 392  82.4 66.1 74.35 89 19 62 16 0 0 0 0 2.58 .24 1.17 2 .0 0 6 1	KEANAE 346 KIPAHULU 258 KULA SANATOR1UM 267	A	72.3	56.0	64.2		79	26	52	14		0	0	0	0	34.27 13.61 2.93 .42	15.4 4.5 .9 7	5 1 4.83 3 1.36 9 .1	3 25 6 25 7 19	.0			19 3 3	8 3	6 2 1 0
15LANO 69.8 9.96 0			82.4	66.1	74.3	5	89	19	62	16		0	0	0	0			4 1.1	7 2					1	1
	1SLANO				69.8											9.96				•0					

HAWAII NOVEMBER 1967

					Ten	npera	ture										Precip	pitation					
							İ .			1	No. of	Days	s					Sno	w, Sleet		1	lo. of	Days
Station		Average	Average Minimum	Average	Deporture From Normoi	Highest	Dote	Lawest	Dote		32° or Below	32° or Below		Total	Deporture Fram Normol	Greatest Doy	Date	Totol	Mox. Depth on Ground	Date	.10 ar More	.50 or More	1.00 ar More
# # # ISLAND OF HAWAII																							
HAINA 214 HAWAII VOLCNS NP HO 54 HILO WB AIRPORT HUEHUE 92A KAINALIU 73B	R A	78.4 66.3M 82.1 78.7	64.0 53.5M 68.6	71.2 59.9M 75.4	8 9 2.2	87 75 85	17 19	50 64	25+ 17+ 23	0 0 0	0 0 0	0 0 0	0 0 0	18.65 23.22 21.25 2.05 4.93	12.98 13.04 7.88 88	4.14 7.71 5.41 1.59	27 25	.0 .0 .0	0 0		18 20 8	9 8 14 3	6 4 4 2
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1 KONA AIRPORT 68.3	A	71.6 81.8 80.0	56.4 65.2 66.4 64.0	64.0 73.5 73.2 74.1	• 9	75 87 82 86	10	62 62	25+ 14 26+ 30+	0 0 0	0 0 0	0	0	2.18 22.03 2.98 12.29 1.42	8.10	.54 5.71 .82 2.62 1.03	26	• 0 • 0 • 0 • 0	0 0		6 21 7	2 15 3	0 8 0
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA 8EACH PAHALA 21 POHAKULOA 107	A	62.1M 89.8 81.1	48.1M 71.7 63.6	55.1M 80.8 72.4	.6	69 95 86	7 11 6	39 67 59	14 25 15+	0 17 0	0	0 0	0 0	16.00 18.40 1.83 13.37 2.94	9.24 7.93	3.36 7.50 1.25 8.35	1 27 2 26	•0	0		17 16 2 5	11 9 1 2	5 4 1 2
PUAKO 95A PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCD 88.2				Ò										1.22 1.19 29.54 31.58	90 23.14	.74 11.07 6.32	2 3 27	•0	0		3	1 0 15	0 0
ISLAND				70.0										11.95			ļ	•0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 95° ON THE 11TH AT MAUNA KEA BEACH, HAWAII LOWEST TEMPERATURE: 30° ON THE 24+ AT MAUNA LOA SLOPE OBS, HAWAII GREATEST TOTAL PRECIPITATION: 48.00 INCHES AT PliHONUA 89, HAWAII LEAST TOTAL PRECIPITATION: .12 INCH AT MALAUEA 676, LANAI GREATEST ONE-DAY PRECIPITATION: 11.55 INCHES ON THE 25TH AT PH WAINIHA 1115, KAUAI GREATEST REPORTED TOTAL SNOWFALL: GREATEST REPORTED DEPTH OF SNOW ON GROUND:

#### HAWAII - NOVEMBER 1967

### SPECIAL WEATHER SUMMARY

Frequent heavy rains, flash floods, high surf, and lengthy periods of strong trade winds characterized the month's weather. Small craft warnings were in effect on 12 days. Seven flood and 3 high surf warnings were issued.

Heavy rains and strong easterly winds, associated with low pressure near the surface and aloft, struck Kauai during the late morning of the 24th, moved slowly southeastward through the island chain, reaching Hawaii Island early on the 26th, and then returned towards the west, prolonging the wet weather on Kauai.

On Kauai, heavy thunderstorms began during the forenoon of the 24th, causing the Hanalei, Wailua, and Hanapepe Rivers to overflow and pour over roadways. Sections of Hauala Road at Kapaa and Maluhia Road at Koloa were washed out. Power House Wainiha, a station in the mountains of northern Kauai, reported 7.25 inches in a 3-1/2-hour period on the early afternoon of the 25th and 3-1/2 inches from 12:40 to 1:40 p.m. on the 27th. The U. S. Coast Guard Station at Kilauea Point, Kauai, reported a gust of 85 m.p.h. between 3:00 a.m. and 4:00 a.m. on the 26th.

On Hawaii Island, intense rains were widespread over the eastern half of the island, where some upland locations in the Kau District recorded nearly 20 inches over a 2-day period, many gages reporting falls exceeding 1 inch an hour. The most severe damage was sustained by the plantation town of Naalehu, the southernmost town in the United States, where nearly 16 inches of rain fell, much of it between 3:00 p.m. on the 26th, and 6:00 a.m. on the 27th. The ensuing heavy runoff plugged the flood

control ditch with rocks and boulders estimated to weigh nearly a ton. The resulting flood waters, up to 3 feet in depth, coursed through adjacent houses leaving behind a layer of mud 3 inches deep. Damage to plantation land and facilities alone was estimated at \$46,500, and crop spoilage was extensive. Some local residents termed the flood the "worst in 40 years."

During the storm, snow, blown into 4-foot drifts by strong winds, fell on Mauna Kea Summit and extended down to the 11,000-foot level, causing some damage to the access road.

On Oahu, minor flooding in the leeward areas, particularly near Pearl City, overflowed the Salt Lake Boulevard bridge spanning Halawa Stream on the afternoon of the 24th; while on Maui, on the night of the 24th, heavy rains flooded Kahekili Highway, cutting off Waihee from Wailuku and the rest of the island.

Also worthy of note was the period of unusually strong trade winds from the 2d to the 11th caused by a strong High north of the Islands. Winds gusted to 30 and 40 m.p.h. in many areas and to 50 m.p.h. and more in a few higher, exposed locations. Waving tree branches, which contacted powerlines, resulted in several power outages. On 2,800-foot Mt. Kahili, Kauai, wind gusts estimated at nearly 100 m.p.h. by television personnel blew down two television antennae on the 4th. On the 7th, two plate glass windows were blown out in downtown Honolulu about 9:00 a.m., and a light plane was flipped over at Kamuela Airport, Hawaii, by 45-m.p.h. gusts. Honolulu Airport had its windiest month in at least 5 years. Scattered light crop damage was reported.

### HAWAII - NOVEMBER 1967

#### SPECIAL WEATHER SUMMARY - Continued

Other events of interest included the lightning which shattered a telephone pole at Knudsen Gap, Kauai, on the 18th, knocking out power on the west side of the island; surf, up to 30 feet in height on Oahu's north shore on the 19th, in which two servicemen were drowned and many other persons rescued; and heavy rains, which flooded the post office at Honaunau, Hawaii, on the afternoon of the 20th, doing \$760.00 in damage.

About 80 percent of all island stations exceeded their average November rainfall. Most locations with below normal rainfall were located to the lee of the mountains.

Stations with 25 or more years of record, and that exceeded their previous monthly or 24-hour record totals for November, are listed below.

# Stations Whose Previous Greatest November Rainfall Totals were Exceeded in November 1967

### (25 years of record or more, only)

Station	Length of Record (Yrs)	Previous Greatest November Total	November 1967
KAUAI			
P. H. Wainiha	59	28.06	34.94
MAUI			
Puohokamoa 2	38	50.00	71.40
HAWAII			
Honomu Mauka	28	32.85	45.55
Ookala	76	29.47	29.79
Papaikou Mauka	41	34.60	41.58
Piihonua	41	43.00	48.00

### Station Whose Previous Greatest 24-Hour Rainfall Total was Exceeded in November 1967

#### (25 years of record or more, only)

	•		
Station	Length of Record (Yrs)	Previous November 24-Hour Extreme	November 1967
KAUAI			
P. H. Wainiha	59	10,38	11.55

Saul Price ESSA-Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811 Russell Dorr ESSA-Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

		1																_												HAWA!	II MBER	1967
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLANO OF KAUAI														**					-	10		-		20		20		-	20	20	00	-
ANAHOLA 1111 A BRYOESWOOD STA 985 A ELEELE 927 A HALAULA 1110 A	8.20 7.01 6.31	.01 .10	.03 .03 .03	.05 .25 .42 .04	*	:	.25 .15 .15 .06	.04 .09 T	.01 .07 .10 .02	.01 .19 .15 .11	.30 .19 .13 .02	*	*	.18 .41 .45 .06	T			.01 .45 .53	*	* * * * * * * * * * * * * * * * * * * *	.40 .80 .41 2.07	•15	.01 .08 .06 T	* * * * * * * * * * * * * * * * * * * *			*	4.40 8.74 4.15 4.01 4.30		.15 .48 .13 .07	.35 .83 .95 .29	•
HALENANAHO 1006 A HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 A KALIHIWAI RES 1131 A	3.72 25.59 41.81	.06	.10 .10	.50 3.55 .23	.02	:	.05 .35 1.30 .31	.10 * .04	.07 .11 .48 .07	.26 .50 .25	.18 .80 .06	.50	.80	.12 1.95 .64	.02			.03 .05 .06	.50 .32	:	.91 .16 .75 .50	.08 .34 *	.23 .40 .09	3.80	4.00 6.50	1.40		7.77 2.92 1.85 20.00 1.19		1.52	1.01 1.42 2.83 1.07	•
KANALOHULUHULU 1075 KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 A KEKAHA 944		.05 .10	•31 •05 •03	.32 .49 .15	*	*	.44 .31 .30 .10	•47 •01	•05 •02	.03 .05	•12 •22 •03 •01	.05 *	.09	.02 .54 .12 .06				.16 .04 .01	.30	* * •15	.08 .98 .22 .34	•11	.06	*18 ** ** *11	.13	.30 *	5.00	2.15 8.36 4.32 3.54 .67	.35 .87 .70 .37	.14 .54 .20	.59 .82 .40 .32	•
KILAUEA 1134 KILAUEA FIELO 17 1135 KILAUEA POINT 1133 KOLO 1033 KOLOA 936	9.77 2.79	.10	.23 .43 .12	.29		.26	.18	.01 .05	.02 .06 .04	.05 .11 .25	.02 .03 .24	.30	.05	.41 .52	.01			.06 .39 .20		.10	.16 .43 .01 .35	.09	.02 .07 .46	.23	* 1.85	1.81		1.03 1.23 .34 .81 7.25	.48 .99 .15	.30 .49 1.53	.73 .99 .18	•
KOLOA MAUKA 994 KOLOKO RES 1137 A KUKUJULA 935 LIHUE VARIETY STA LIHUE 1020 A		.01 .15	*15 T *07	•31 •21 •20 •19 •15		:	*18 *15 *18 *17 *04	.09 .01 .02 .03	•01	.29 .01 .07 .12	.19 .01 .02 .16	* * * *15		.90 .60 .20 .22		.01		.20 .50	.24	*	.55 .48 1.30 .26	.07 .18 T .10	.07 .05 .05 .03	.36	3.30 * 1.05	3.48	2.65	1.30 4.20 .88 4.27	.62 .94 .20 .42	.32 .23 .04 .21	.95 .86 .54 .43	•
LIHUE WB AIRPORT R MAK AHUENA POINT MAKAHELI 965 A MANA 1026 MOHIHI UPR CROSS 1083	5.13		.21 .03	T •10	•10 *	.01	*01 *10	.01 .09	.11 .02 .04	.01 .04	.03 .07 .01	.17 .05 .01	.03	T	T .	.68	.18	.01 .22 .44 .51	.27 .57 .21 .02	.02 .11	.05	.01 .02	.05	.33 .27 .27	1.31 .43 .15	.46 .64 1.76	.88 .96 .50 .53	.08 .48 .12 .52	.02 .21	.29 .01 .04	.10 .52 .05	•
MOLOAA 1145 A NIU RIOGE 1035 N WAILUA 0ITCH 1051 PH WAINIMA 1115 PRINCEVILLE RANCH 1117	5 • 11 2 • 22 26 • 44 34 • 94 17 • 65	*11	.09 .22 .49	.12 .64 .62 .17	************	•	.06 .39 .50	•03 •01 •28	•02 •16 •22 •03	.03 .37 .14	.01 .29 .09	* • 36	* *50	.23 1.32 .01 .51				.07	.10	* *	.26 .15 1.21 .10	•48	.01 .66 .20	* •26 •18	* 1.88 2.00	* 11.55 7.29	8.05	.90	1.50	•10 1•57 •53 •46	1.30	•
PUEHU RIOGE 1040 PUHI 1013 A RESERVOIR 6 1004 A WAHIAWA 930 A WAHIAWA MOUNTAIN 990 A	13.55	.17	.08 .16	.23 .41 .14	*	*	.05 .11 .10	.01 .02 .03	.02	.24 .28 .08	•10 •21 •07	:	:	.27 .50 .14	T e	.02		.11 .02 .24 .08	:	:	.79 .78 .75 1.43	•12 •02	.02 .09 .02			:	2.05	.69 5.56 8.91 4.40	.14 .61 .21	• 24 • 05	.80 .83 .39 28.50	•
WAIAHI LOWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 WAIMEA 947	17.59 21.75 2.04 5.66 3.17	.07	.08	.38 .54 .15	.03		.25 .04	.03 .21	•11 •24	.37 .35	.13 .15	.23 .48	.48 .52	.02 .05				.03 .11	.20 .39 .34		.21 .35	•31 •40	.25 .21 .02	1.75 2.05	•25 n	1.22	3.96	1.80 2.30 .68 3.95 .91	.30	•15	.82 .89 .02 .30	•
WEST LAWAI 931 A	9.45	.01		•27	•	*	.17	.07	•02	•14	•05	*	•	.32				.30	٠	*	1.18	•02	.05	*	•	٠	*	5.91	.26	•07	.61	٠
ISLAND OF OAHU																																
AIEA FIELO 625 761 BERETANIA PUMPING STA CAMP 84 807 CHURCH COLLEGE LAIE COCONUT ISLAND 840.1	5.45 3.31 4.59 5.10 4.58	.06	.01 .03	.05 T .06		.05	.10 .02 .10 .09	.06 .03 .10	•17 •12 •15	.08 .07 .04 .08	.03 .02	.15 .08	.12 * .26	.59 .22			.07	•07 •20			.13 .13 .10	.08 T	.18 .08 .10 .10	.34 .03		1.43	.28 .55 2.10	3.42	.18 .05 .03 .10	.13	.25	
EWA PLANTATION 741 HELEMANO INTAKE 881 HOKULOA 725-2 HONOLULU OBSERV 702-2 HONOLULU WBAP 703	3.26	•	• 3 7 T	•	.02	* T	.02	* T .02	.01 .03	•37 T	* T •04	.03	* 01 * T	1.72	* T	٠	.19	.04 *	e T	* T .07	.19 .65 .31 .04	.09	.03	.09 .31 .80	.30 1.01 .03 1.10	.08	• •13 •07 •21	.01	• 01	.05	1.45 .03	•
HONOLULU SUBSTA 704 H S P A EXP STA 707 KAHANA 883 KAHUKU 912 KAILUA FIRE STA 791,3	2.53 3.29 22.17 3.52 3.75	1.90	.02	.12	* * T		.09 .01 1.64 .06	.08	*12 * •01 •08	•10 •	.08 .01 *	.09 .16 .02	•31 * •	1.84 .25 .01	• 02		.03	.15 .05 *	:	.11	.15 1.00 .52	.16 .01 *	.28 .26 * .05	.43 .31 *	.23	:	.10 .10	13.00 1.65 1.45	.12 .02	03 T	2.79	•
KALIHI RES SITE 777 KANEOME MAUKA 781 KANEOME RANCH 838 KAPALAMA 773 KAWAIMAPAI 841		.68	.24 .38 .40	1.11 .07 .17	.06	3.16	.04 4.27 T	.02 2.05 .12 .03	.08 .03 .08 .15	.06 .01	.10 .01 .07	.34	.02	.06 .09 .85	.41 .04	.39	.18 .72 .03	3.11 .02 .12 .05	:	.10	.30 .55 .13	.08 .20 .23 .12	.26 .20 .26 .55	.64 .22 	.06	3.50	.94 .13 .85	2.25	.06	.06	.16 .12 .80 .20	•
KAHA1 1KI 1NTAKE 880.2 A KEMOO CAMP 8 855 KOOLAU OAM 833 LUALUALEI 804 LUALUALEI WTR TUNNEL A	3.64 18.34 2.25	.04		.25 .28	.01 .09		.01 .12	.02 .14 T	*01 *64 *10	.48 .01 1.84	•01 •43	* *63 T	* 16 .36 .01	.60	.65			.03 .27 .01		.02	.01 .20 .02	.25	.10 2.17 .01	1.66 .01	2.16	2.16	1.48	1.08	.54 a		16.70 .25 1.26 .14	•
LUNALILO HOME 724.2 MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUU POINT 724 MANOA 712	1.51 1.13 1.15 1.45 7.24		* †13	.12 .52		•	.03 T	.13	•02 •01 •02 •33	.02	.10	.05 .02	.21	*	.04	.19	1	•02	.01	٠	.26 .13 .02 .08 .47	.08	.02	.13	.28 .01 .05		* T • 26	.09 .93 .90 .40	.02	.19		•
MANOA TUNNEL 2 716 MOANALUA 770 NUJANU RES 4 783 NUJANU RESERVOIR 5 775 OPAEULA 870	14.84 5.96 12.84 13.01 8.86	.82	.08	.06 .01 .02 .18		.04 .01	.02 .02	.12 .08 .05	.26 .10 .28 .49	.26 .07 .12 .20		1.28 .44 .34	.10	.60		.28	.30 .06 .34 .34	.02		.70 e .03	.52 .13 .36 .96	.42 .02 .04 .24	.30 .62 .62	.71 1.18	1.01 2.14 3.75	3.72	4.65		.26 .30 .25	.12 .30 .22 .22	.25 .20 .48 .65	•
PALOLO VALLEY 71B PAUOA FLATS 784 PORTLOCK ROAO 724.4 PRI WAHIAWA 820.2 PUNALUU 884	11.90 22.52 1.90 4.71 4.45	.10	.03	.10		.04	.12 .34 .04	*10 *10	.26 .62 .01 .10	.18 .38 .04 .02	.22	1.16 .82 .13	.08		.02	.16	.32	.08 .09 T		1.18	.46 1.22 .06 .15	т	.03 .06 .13	2.48	.73	3.90 .12 	• 92		.56 .17 .07	1.24 .17 .05	.68 .15 .64 .37	•
PUNCHBOWL CRATER 709 ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713 WAHIAWA OAM 863	4.09 6.66 13.33 4.96	.40 2 .03	T	.01 .10 .23 .26	T	.03	T .04 .05	.06 .05 .28 .01	.16 .05 .34 .07	.37	.02	.08	.22 .12 .94 .68	,01 T		•02	.35	.01		.01 .04 .09	.18 .26 .66 .03	.22 .16	.15	1.03	.63 3.12	• 20	.09 .18 4.26	.52 .50 .62	.06 .10	.45 .11 .54	.67	•
WAIALAE KAHALA 715 WAIALUA 847 WAIANAE 798	11.99 1.20 4.20 66	T .04		.29 .11 .08	.01	.04	*22 T	.11 .03 T	.04 T .01	•12 •10 T	.25 T	.03 .01	.21	**	T T	T .35	.05	*03	.01 1.27 .03		.03	T T	.17 T .01	•12 •23		•04	1.46	6.49 .05 .48 .53	.02	.05 2.35	.12 .15 .02	•
WAIAWA 836 WAIKANE 885 WAIKIKI 717-2 WAILUPE RESERVOIR 170 WAIMANALO 794	A 21.2 A 11.9 1.0 A 3.3 A 2.1	8 1.28 1	.04	* •01 *		04	1.74 n .02	.02	* •01 •38 •09	.01	•	.06	.05				.66	2.78 ** .20 *	.01	*	.51 .02 .33	e T n T	2.50 * .03 .55 .09	.08	.03		.11	6.15 .07 .06	T •	1.69		•
	A 6.6 A 3.0 3.4	3	.02	.16		.04	.07 .05 .04	.03 .01 .04	.08 .06 .10	.07 .01 .04			.02	.62 .10						.16	.12 .03 .16	.08	.13 .03 .22	• 28	1.10	•04	.08	2.58	.01 .10	.02	.12	•

See Reference Notes Following Station Ind-

Continued																													NOVE M	ER 19	67
Station	Total	1	2 3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31	1
15LANO OF MOLOKAT	П	+																													
KALAUPAPA 563 KAUNAKAKAI 536 KEONELELE PEN5 551 KALALAPUL 534 MAPULEHU 534 MAPULHU 542 MAUNALOA 511 MOLOKAI AP 524 PUUONOKLI PANCH 542+1 AIKOLU 540 A	4.10 .46 1.46 2.53 3.77 .63 1.19 4.62	.00	.30 T .08 .2 .16			.20 .08 .03 .06	.05 .02 .10	.05	.05	.20 .01 .11 .02		. 05	.70 .33 .05 T			.15	.50 .55	.05	.15	.15 .21 .07	•22		.04 # .75	.50 .48 .15		* .20 * .03	.80 .21 .87 .10 .02 2.80 2.64	T •48		.10 .16 .15	
15LANO OF LANAL																															
KAMEPUU 690  KAUWALAPAU HAPBOP 658 A LANAI CITY 672 LANAIHALE 684 MAHANA 694  MALAUE 676 MAIAKEAKUA 685	2.92 1.14 4.31 4.30 2.77	.20 1	.25 % .06 .59 .1 .26 %	.02	* * * * * * * * * * * * * * * * * * * *	.02	•		.06	•			:	* *	:	012	.06 .31	.06	.05 .05	* .42 .16 * *	:	*	•	.65	1.62	* * * * * * * * * * * * * * * * * * *	.60 T	:		2.04 .18 2.77	
15LANO OF MAU1																															
AUMAHI=252  ALLEAKALA 8 E 5 434 A  ALLEAKALA PANCH 432 A  HALEAKALA PS 338  HALEAKALA FS 338  HALEAKALA SUMMIT 338.4  HALIMAILE 423  HAMA JODON 465  HAMA 31, POPOT  HAMAULI 281  HOLUA CABIN 259.5  ADNON ONAU 480 A	7.28 5.35 7.17 9.75 9.57 9.89 11.82	03 2 * T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.15 2.2. .91 1.2. .08 .7. .05 .1. .93 .7. .55 .4 .06 .18 .0.	52 .15 0 .03 2 .18	.26 .08 .01	.03 .26	.48 .10 .04	.16 8 .05 .04 .08 .33 .40 .35 .02	1.77 .96 .30 .05 .75 .96 .08		1.58 .59 .05 .36 .10	1.22 1.23 .67 .06 * .37 .15 .27	.62 .97 .02		•07	.04	.03 .01	* T •15	.28 .59 .14 .11	.04 # T 1.54 .34 .06 .09 .38	.01 .50 .06 .07	.37 .07 .21 .04 .26 .37 .28 .22 .46	.23	.03 .31 .32 .19 .17 4.30 .54 1.45	.88	.69 .42 2.02 # 1.58 1.29 .48 .28	1.65 .82 .62 .48 .45 .57 .75 .18 .86	.18	.14 .36 .10 .33 .10 .20	.46 .08 .60 .14 .10 .10 .65 .31 .19	
HONOKOHUA 493 A HONOMANU GULCH 341 A KAHOMA INTAKE 374 A	16.20	• 02	.73 .0			. 32	.04	*04	*29	•07 # 2•07			.30		*	:	.02 # 3.12		*	. 46 a	.24 	.08	:	.57	*		1.28	.05	.02 # 1	.38	
KAHULUI WB AP KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAHUA 410	1.69 28.12 21.97 7.67 2.23	.07 2	.30 .00 8 .66 .75 8 .31 .15	.14		T ***	.01	.07 .60	.01	•11 • •43 • •01	.18 .52 .22	.01 .60	.05 1.92			* .19	.20	.08	T * 45 * 58	T .70 1.86	T #	.10 a 1.12 a	.01 .69 .01	.01	.05 2.61	.13 4.50 .18	.02 2.15 2.15 .05	.01 .66	* 21 *04 *	.02	
KEANAE 346 KEANAKAPU BEACH 260.2 KIHEI 31i KIPAHULU 258 KULA HEIGHT5 323.2	34.27 .31 .47 13.61 1.98		.05 .26 T .12 .7 .13 .1	7 •14 5 •04	•	•	•	*27	.64	.20	.17	.68	•	•	.04	.21	.04	.01	.16	.07	.03	.32	.60	.02 2.26	* 4.63 .34	.14 .84 .23	.10 .20 .34	.19		.57	
KULA SANATOPIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442 A	2.93 .42 6.60 .51 30.00		.78 .0: .01			:						T					.12 e		.01 .17 .03			.02			1.36	.70 .10	.07	T		5.60	
MAHINAHINA 466 A NAKALELE -FLD 60-497 A OLINOA 332 A OLOWALU 296 OLOWALU GULCH 377 A	6.31 3.09 9.67 .29 8.00	.01	.90 .46 * * * * .77 1.16		* * *	.07 .68 1.72	.05	.07 .02	.12 .51	****	*41	.55	.02 .54 1.72	.01	# T		.12 .09 .10	:	1.16	.14 .19 1.19	.09 .01	.26 .06	:	# •24	.97 #	.04	.60 1.29 1.74	.07	•17	.12 .39 .16	
PAAKEA 350 PAIA 406 PANILEIHULU 259°2 A PAUWELA 490 A POHAKEA 8PIOGE 307°2	25.73 4.69 14.25 14.01 1.61	.01 1	.37 1.65 .21 .1	7 T	:11	* 15	.44 T .03	•38 •17 •	1.96	.58 .10 .27	.70 .40	.65 .22 .01	.07 † *	* •03	.05 n	* .02	.30	:	.64 .57	.80 .06 .56	.59 #	1.43 .29 .38 .02	.86	1.70	1.78 .11  	1.54	1.80 .12 	1.13	.25 .16 * 14	.05	
POLIPOLI SPRINGS 267.2 A PUOHOKAMOA 2 343 A PUU KUKUI MAKAI 472 A PUUNENE 396 SPRECKELSVILLE 400.2	6.67 71.40 18.40 1.52 2.31	*				:	* * T	•21 •	.03	.05	* • 14 • 28	.12	* * * * * * * * * * * * * * * * * * * *	*	• 2 Z •	*	:	:	.20 .08	*09 * T	*	.03 .08	:	:	.02 .01	.02 .47	* * *10	.04	5.75 # 71 # 16 .02 .05	1.40	
TWIN GATES 261.3 A UKULELE 333 A UKUMEHAME 301 A ULUPALAKUA RANCH 250 MAMIKULI 364 A	1.96 13.00 .31 2.71 2.08	.14	.04 .09		*		*	*	.09	:	.19	.14		*	:	:	** •17 •06	:	1.00	.02	:	:	*	1.96	.18	.10	.59	*	* 13	.00	
WAIEMU CAMP 484  WAIMEE VALLEY 482  WAIKAMOI 449 A  WAIKAMOI 0AM 336  WAIKAMOI 0AM 336	4.75 6.60 30.60 45.21 2.83	.08 2 .26 5	.98 .40 .93 .70 8 .44 6.42 .42 .30		: .	4.29		.07		:	.20 .22 	.17 .07	# 6•86	* 14	•02	e T	* 12	:	.01 .04 #	.02 # 1.58	.14	.07 .26 1.14 .03	:	.59 .67 	.75 .64 		.05 .07 7.50		.05 .01 # 30 2.06 1	0.60	
WAILUKU 392 WAIOPAI RANCH 256 A	2.58 2.73	•02 1	.17 .13	.02				•02	.03	•01	.30	.03							.02			.16	.12	.96	.33 #	.03	.05 1.75	.04	.02	.04	
ISLANO OF HAWAII																															
AHUA UMI 75 A AHINI 182+1 A EAST HOMOKAHE 1838 A HAINA 214 HAKALAU 142	22.54	2.47 3	.91 1.95			.02	.68 .57	.26 .13	.27 .01 .53	.68 .43 .47	* * *53 *35	.28 .43	1.96 8 .44 .27	•	.06	05 8		1.14	* * * *04 *08	.65 .30	• 76 • 15 • 15	.32 .45 .92		.87	.25	1.20	2.41	* •07	* 1 1.04 * 22 .59	.54	
	13.90 15.23 5.06 23.22 4.49	.30	.04 .96	2 • 5 6 • 1 1	*	.11 .23	.68	.20 .01	.26 .10	.55 .08	.50	.34	* * * * * * * * * * * * * * * * * * *	* ** •12 •11	* * .02 .01	.05	* * *		.11	:	# #	* * * * * * * * * * * * * * * * * * * *	* * * *38	.09	.01	* 1.56 5.30	7.71 .88		* 15 * 2.60		
HILO WE AIMPORT PHOLUALDA 70 A HOLUALDA BEACH 68 A HONAUNAU 27 HONOHINA 137	21.25 2.90 2.67 4.94 37.71	*			.01 .50 1.27	.02	.22	.56 n	.95	.60	.02	.02	.04 * .03 .30	.07	.02	T		.05 .06 2.85	.30 2.10 .10	,58 a	.83 .01	1.49	.53	.04	5.41	.03	.86	.84	. 27 . 2	.92 .90 .34 .26	
MONOKANE 181.1 A HONOMU MAUKA 138 HONUAULA 71 A HUALALAI 72 A HUEHUE 92A A	25.21 45.55 .24 1.10 2.05	3,59 4	.73 4.76 .32 .86	1.68	.85	5.33 .01	1.37 .89 	•27 •53 1	.04	.62 1.51	* 45 * 45	.70	1.80	:	.28	* * 32		2.56	# +09 #	.36 1.17	•19 •72 #	.36	.81	1.05			2.51	.05 2.48	1.07 1.55 *	.64	
KAALA 1X1 12 A KAAWALOA 29 A KAIWALIU 738 KALAPANA NO 1 67.8 KAMAOA NO 2 5 A	17.40 2.99 4.93 8.37 7.04	•27 •71 •14	.01 .46 .45		1.59	•92 n	.08	•13	.02 .15 .03	•03 e		* 17 •19	•10 •02 •10		т	T T .09		.15	.03 1.32	.15 .17 .36	.10	* 72	• 56 • 52	.06	•04	* 1.13 1.36	6.50 * .04 1.16 5.50	.73	•01 •07	.03	

										_							11	Д	TI	OI	0													
	Continued																															HAWA!	11 4BER	1967
	Station		Total													Day	of M	lonth																
			ŭ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
K	AMUELA 192.2 AMUELA AIRPORT APAPALA RANCH 36 APOHO LANDING 935 AUMANA 88.1	A 1	4.43 2.18 2.11 9.38 3.39	.56 .12	.54	1.47	•13	.04	.28 .05		.02 .03	.02 .02 1.20	.01	.07 .01	.08 .06		T *	.02	.02 e	1.30	* *02	.02 .01	.02 .08 *	*02 T	.03 .05	* 07 T	T .02 5.41	.01	.23 .29 7.50	.31 .21 4.30	. 02	.01 T	ī	:
K	AWAINUI LOWER 193 EAAU 92 EALAKEKUA 26.2 EHENA 181.2 EHENA RESERVOIR 176.1	A 1	0.33 2.03 2.98 7.20 2.29	* 1.54 .23 * 1.24	.54 .01	.53	1.13	* 13 .82		* .38 * 1.02	.18	.59 .03		* •64 *	.78 .05	.06	*	.08	.02 e	2.43	.07	.33	*	.61 .32	.80	1.12	.70			1.81	.91	.38	.35 .06	•
K	OHALA 179A	A 3 A A	4.45 6.60 6.42 9.04 7.43	•21 •34	1.07	.88	1	.18	.50 .57 .88	.90 .18 .24	* •21 •01 •03 •05	.46 .15 .18	.20	.95 .09	.57	.13 .46 1.19	.01	.02 .01 .02	* .01 .06 .08	.02 .02 .07	.92 *	* .21 * .10	* 1.34 .31 .18	1.34 •13 •51	.81 .65	* 1.16 * * .16	.21			7.15 1.17 1.22	1.45	* 1 2.10	.56 .02 .15	•
KI KI	OIAWE LOWER 196 ONA AIRPORT 68.3 UKAIAU 222 UKUIHAELE HIC 199 UKUIHAELE MILL 206	2	6.83	3,36	2.15	1.35	2.18	.05 .37 .61	.02 .02 .08 2.26	.84 .58	.20 .12 .17	.26 .01	2 • 8 0 • 6 8 • 3 2 • 0 4	.63 .68	.27	.28 .72 1.22	*			.85 .11	•	1.03	.36 .05	.03 .34 .08	.62 .25	* •61 •35	•42	*	.02 2.57	.01	.22 .02	* 1.18 .61 .58		
K	ANIHAU 68 C	A 1	8.40 0.92 5.90 4.06 7.31	.08	.48 2.00 .94 1.00	.10 .01			.02	1.90 .05 .05	*16 *20	.54 •13 *	.06 *	•13 • •06	.09	.26		.09	.10	.10 .05 *		.82	.24 5.50	.20 .10	. 26 a	*	.58 .55 *	5.85 8	.14	7.50 .15 *	2.35	2.40	.22 .32 8.40 .44	•
M M M		A	2.57		1.25	• 22	:	•75 *	*		:	.08	.04 #	:	:				:	.06 2.17 2.00	.08	.30	:	:	.05	.16 	.35	.28 *	.08 3.78 .13	.06	:	* 1	* 4.42	•
NA NA	DUNTAIN VIEW 91 AALEHU 14 APOOPOO 28 AULU FOREST 38.6 ULII 179	A 1	1.98 6.78 2.06 2.39 7.74	.06	.38 .01	3.09 .02 .28 .83		.28	.16 1.24 .80	1.15 * .20 .17	.09 * T .02	•39 •02 •25	1.00 * *	.62	1.02 .34	.07 .15 T	.04 *	.07	.04 .03 *	*03 T	.03	.15 *	.62 .65 .03 .24	.49 T .23	1.49 .01 *	1.51	.03 * .04	* * * * * * * * * * * * * * * * * * * *	7.86 8 5.15	8.00	1.46 .08	2.50 T	.52	•
OF OF	DKALA 223 PIHIHALE 2 24•1 RCHIO LAND EST 91•5 AAUHAU 217 AAUILO 221	A 12	9.79 1.27 2.68 7.79 2.85	.11	.05 2.03	T 2+86 1-44	T # 1.71	.34 T .30 .30	.03 * .02 .02	.63 .46 .76	.27 .18 .11	.35 2.39 .01	.49 .38 .46	.46 .73 .60	.32 .21 .22 .19	.33 T .34	T T *			3.07		.09 .12 .05	.43 .06 .16	.24 T .22 .20	1.41 T * .43	.54 8 .44	.09 .08 4.36	•15 •02	3.93 .36 .90	3.72	.61 T .08	1.18 .09 .36	.06 T	:
P.I.	AHALA 21 AHOA 65 AKAO 37 APAIKOU 144A APAIKOU MAUKA 140.1	A 12	3.37 9.06 2.12 9.67 2.58	.60			* •47	.09 * .16 .23	.06 * .05	.52 * .37	.07 * •10 .38	.88	.79 * 1.30 1.71	.69 .97 1.52	.84	.06 * .23	*	.05 * •15 •07	.18 * T	.16	.08 T 3.01	.08	.10 1.54 * 1.24 1.52	.22	1.12 .79 .82	.01 .82 .56	.02 * 1.40 .91	.08	7.75	1.33	1.15	.05 .69 * 1 1.21 1.84	2.12	:
P1 PC	EPEEKEO MAKA1 144 LIHONUA 89 / DHAKULOA 107 / JAKO 95A JU K1HE 120 /	A 48		* 50	2.25	.02	•59 •75	.02		* 52	* <sup>54</sup>	.95	* 55	.18	.14	.12		.10	.03	***************************************	.10	.05 e	.60 *	.30	.40	.89	1.39		7.50 2.15 .17	.06	1.58	* 1	8,00	
PL PL	JU LAAU 102.1 JU LEHUA 73 JU MALI 113 JUOKUMAU 167 JU 00 82	A S	.57	. 35 . 24	* 1.46	* 1.63 .32	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	.76 .03	.31	* * •12 •13	* * •12 •40	* * •21 •34	* * * * * * * * * * * * * * * * * * * *	.07	* * 1.06	* * *01 *05	.04	.02	e e .26	.03	* * * * * * * * * * * * * * * * * * * *	* * •16 •40	. 21 . 17	* * * *21	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	e e e e 3.65	* * * .78	* * .09 1.20	* * 41	1.54 2.10 5.57 .03	•
5A 50	UU WAAWAA 94.1 NOOLE ROAD 1 84 / DUTH POINT CORRAL 3 / IIKOA 118 POLU POINT USCG 159.2	A 23 A 5	3.93 5.89 9.54 3	T # .91 .14	* 1.771	8.10 1.07	* * 3.44 .07	1.03	* * •69	.77 .07	.02 .03	.05	* * * • 04	•02	.43	.05 * 1.10	* * * * * * * * * * * * * * * * * * * *	:	.07	3.80	:	.10	.38 .17 .31	.01	* .56 .27	.06 .07	.02 .04		.34 2.30 1.09		.05 .02	* * •57 •27	.02	•
WA	IAKEA SCO 88.2	31	.58 2	.92	•99	3.29	1.91	.09	.31	.72	.28	.34	1.48	.78	.69	.09		.09		.20		.15	.79	.31	1.12	•91	.19	.22	4.63	6.32	1.02	1.33	.41	٠

### SUPPLEMENTAL DATA

		(	Wi Speed -		.)		Relati	ve hum	idity ave	rages ·		Numl	ber of d	ays with	precip	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	OTH MERI	DIAN TI		Trace	.01–.09	.10-49	.50–.99	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WB AIRPORT	23	0 • 7	6.7	22	Е	24	84	80	70	82	1	8	6	10	2	2	29	27	8.3
HONOLULU: OAHU: WR AIRPORT	6	10.7	11.6	31	NE	29+	73	69	55	69	10	12	3	1	1	0	2.7	44	6.3
KAHULUI: MAUI, WB AIRPORT	5	12.1	13.5	30	NΕ	26+	82	81	63	82	4	13	5	1	0	0	23	61	5.6
LIHUE, KAUAI, WR AIRPOPT	6	13.8	15.5	32	SE	26	77	75	68	75	2	13	8	1	1	U	25	41	7.4

										711				1 1			Of Mo													N	OVEMBE	9 1967 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31	0
	一	ī		-																												
15LANO OF KAUA1																																
KANALOHULUHULU 1075	MAX	6 9 5 3	72 52			62 50	65 52		68 56	70 58	64 58	65 56	70 54	68 45	67 40	69 42	70 45	6 9 4 5	70 51	73 54	69 53	70 46	66 50	66 52	62	62 56	62 57	61 57	64 58	63 55	65 55	66.3
KILAUEA POINT 1133	MAX M1N	85 70	80 72	81 70	79 72	80 68	80	80 70	80 74	8 2 70	80 65	79 73	80 71	82 69	82 66	8 2 6 9	83 67	84 68	84 72	85 73	82 70	80 69	82 66	8 2 6 7	7 <b>6</b> 68	78 65	75 64	76 72	79 69	77 65	78 69	80.4 69.1
LIHUE WB AIRPORT	MAX MIN	82	82 70	81 73	81 72	81 72	81 71	82 71	8 2 7 0	83 73	80	80 71	81 73	81 73	8 1 66	8 2 6 8	80 65	80 64	80 65	83 67	8 2 7 4	8 1 7 3	80 71	76 69	74 67	77 67	75 71	76 71	79 71	77 70	78 69	79.9
MAKAHUENA POINT	MAX	83 70	84 71	84 73	83 73	84 70	8 2 7 1	8 1 70	83 73	84 70	84	8 2 7 3	82 72	84 73	85 70	83 73	84 70	84 69	83	84 71	85 72	84 74	83 72	81 70	80 70	81 72	80 <b>69</b>	7 A 70	79 71	79 70	79 69	82.4 71.1
MANA 1026	MAX M1N	88 65	8 A 6 5	88 64	87 63	86 63	85 62	88 65	87 64	86 63	90 66	84 65	86 63	86 63	82 64	84 65	86 61	86 63	86 64	85 65	86 65	86 65	84	83 62	8 2 7 3	83 70	81 70	78 68	79 69	83 65	85 64	84.9
NIU R10GE 1035	MAX MIN	80 65	85 65	82 63	82 60	83 61	84	85 62	82 64	85 64	85 65	85 64	84 63	84 62	81 61	82 63	84 63	85 65	84 65	83 64	85 65	85 63	85 62	76 64	80 63	79 64	78 63	79 65	80 64	79 64	82 63	82.4
WAIAHI LOWER 1054	MAX	79 61	78 65	78 62		78 62	77 66		78 65	79 69	77 66	77 65	77 63	79 62	80 58	77 62	79 60	81 58	79 61	81 61	79 61	79 64	78 62		74 65	79 64	77 63	74 67		75 66	74 65	77.8
ISLANO OF OAHU																																
EWA PLANTATION 741	MAX M1N	85	86 70	84 69	83	83 69	84 70	8 2 7 1	85 69	8 4 7 2	84 71	83 68	85 66	83	82 61	83	86 66	80 67	83	86 65	8 4 6 7	83	82 65	82 66	81	8 4 6 7	77 67	78 68	84 72	81 71	81	82.9
HONOLULU WBAP 703	MAX M1N	85 71	86 74	85 74	85 73	85 73	85 73	84 72	86 71	87 73	86 73	85 73	85 72	84	85 65	85 70	84	81 71	83	86	85 71	83	83 71	83 70	83	85 70	80 71	8 2 7 2	84 72	82 70	82 71	84.1
HONOLULU SUBSTA 704	MAX M1N	80	81 72	80 72		79 73	80	80	80	81	81	79 68	81	81	80 71	80 73	83 70	80 71	81 71	84 73	82 73	80 71	79 70	80 69	79 69	79 70	78 72					80.3
KAHUKU 912	MAX	84 74	82 73	8 <b>3</b>			8 2 7 1	82	81 72	82 74	8 2 7 2			82 70	82 72	82	83 71	83 70			83 65	83 73	83		83			83 70	83 71	81 71		82.3
KANEOHE MAUKA 781	MAX M1N	71 65	74 67	76 67	75 69	72 63	69	70 65	76 67	73 66	72 67	73 64	71 65	72 67	73 61	74	70	71 61	75 63	74 64	74 63	74 63	75 64	72 69	74 68	73 66	70 62	71	71 59	72 61	73 63	72.7
MAKAPUU POINT 724	MAX M1N	80 69	79 73	79 68	79	78 73	79 70	77	77 74	78 72	78 73	79 73	77 71	77 71	79 73	77 71	78 69	80	78 72	8 1 7 2	8 O 73	78 72	77	77 71	77	81 71	77	76 71	77	76 72	76 70	78.1
OPAEULA 870	MAX M1N	80	80	80	78 66	78 67	78 67	75 65	75 67	77	78 68	80	75 65	78 62	79 61	78 62	80	81	8 9 6 8	84	80	80	77	80 65	80	80	77	71	73	75 66	71	78.2
PRI WAHIAWA 820.2	MAX	8 4 6 7	81	83	82	79 68	82	81	8 Q 6 8	82	80	82	75 67	83	80 58	81	83	83	8 O 6 2	80	85 62	83	80	79 65	78 66	80	79 66	81		80 68	75 66	80.6
WAIALUA 847	MAX M1N	84	80	84	81	81	81	82	81	82	83	82	81	83	81 58	81	84	85	82	83	84	84	81	81	79 66	80	78 64	76	78 69	81	79 68	81.4
WA1K1K1 717.2	MAX M1N	89 71	87 73	87	86	87 70	90	85 72	84	86 70	85 74	86	85	86 69	86	86	87 65	87	82	86 68	87	86	85 70	83	84	83 65	86	79 67	83	83	81	85.2
	- 11							_										- /						•					٥.		•	1
15LANO OF MOLOKAI																																
MOLOKA1 AP 524	MAX MIN		78 70		82	79 71	78 71	80	80	83	81	8 2 70	78	79	82	77			81			81 72		79	78		78 67			79		80.4
	•														04	0.4	70	09	0.0	50	12	12	,,	70	00	07	67	71	73	73	68	69.6
15LANO OF LANA1																																
LANA1 CITY 672	MAX	76	76	77	74	73	73	75	77	76	77	76	76	78	76	76	77	76	75	75	77	77	79	78	78	77	75	77	75	75	74	76.0
		67		00		00	0,	04	011	0,7	0,	(, )	08	04	01	04	63	67	5*	62	03	67	54	54	63	04	67	67	62	65	54	64.6
ISLANO OF MAUI																																
HALEAKALA R5 338	MAX MIN	64	61	63	61	60	61	54	59	62	60	59	56	63	59	62	63	62	57	58	64	65	59	55	57	59	61	54	58	61	53	59.7
HALEAKALA SUMMIT 338.4	MAX	49			49	46	56		63	51	52		49	51		52	55	64	53	47	52	57	49		49	45	48	44	45	44	45	50.8
HANA AIRPORT	MAX	83	82	83	80	81	82	83	82	80	82	8 2	80	80	80	80	81	82	81	83		82	8.2	78	78	76	78	78		78	78	3A.5 80.5
KAHULUI WB AP	M1N MAX MIN		82	84		82	83		81	70 82	83	72 81	81	82			80	80	70 85	85		82		69 81		83	68 76	75 78	81	80	80	71.1 81.5
KAILUA 446	MAX MIN	82	70 82 64	82	74			78		74	76	69 77	75	76	78	78	77	77	79	78	8.2	77	78	76		74		75	68 74	76	75	67.1 77.1
KULA SANATORIUM 267	MAX	71	74		72		74	73			74	74	74	71	71	72	63	63	68	62 74	63 72	63 72	63 71	63 72	71	71	64 79	64	69	64 73	72	63.8
LAHAINA 361	MIN		88	8.8	87		88		87	88	88	57 88	87	86	85	85	85	56 82	57 84	58 87	56 87	54	54		56 84	56 85	84	58 84	84	55 88		56.0 86.1
WAILUKU 392	MAX	80	79	8.4	83	83	82	84	84	83	83	67 84	8.2	8.2	84	84	68	69	66	68	70 85	66 84	83	6 A 8 1	83	74	69 85	74	76	82	0.1	82.4
	MIN	67	67	67	67	68	66	69	65	66	68	66	65	66	65	65	62	64	64	64	68	66	64	64	66	64	72	67	67	67	66	66.1

Continued									D	ΑI	LY	TI	EM	PE	$\mathbb{R}^{P}$	T	UR	ES													WAII NOVEM	BER	1967
																Day	Of Mo	nth															age
Station		I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
* * *	T																																
ISLAND OF HAWAII																																	
HA1NA 214	MAX	72 64	79 66	73 67	72 63	75 63	75 68	83 64	87 64	79 66	79 63	78 64	78 63	78 61	78 62	80 66	8 1 6 3	80 63	81 64	83 65	81 65	80 64	76 64	76 62	80 60	76 60		7 <sub>1</sub>	79 66	79 65	80 68		78.4 64.0
HAWAII VOLCNS NP HQ 54	MAX	68 58	70 58	71 58	66 54		68 54	65 54	62 54	66 53	63 54	63 55	68 51	68 52	71 50	67 52	68 55	75 50	72 55	66 54	71 55	68 52	62 51	62 52	65 52	66 52	67 51	61 56	62 56	61 52	6 2 5 2		66.3 53.5
HILO WB AIRPORT	MAX	83 72	83 72	83 74	81 70	82 71	84 70	82 69	82 67	81 70	83 69	82 71	83 69	81 68	82 66	83 68	84 70	84 65	83 69	85 68	82 70	81 67	80 66	81 64	82 66	82 66	80 68	83 70	82 70	81 68	77 65		82.1 68.6
KAINALIU 738	MAX	78 65	80 64	81 62	79 62	79 61	80 61	80 60	79 64	79 63	79 64	79 63	80 63	78 59	79 61	79 61	77 61	75 62	81 64	77 63	79 64	79 63	79 61	78 60	79 61	80 62	78 64	75 64	79 65	79 64	76 63		78.7 62.5
KAMUELA 192.2	MAX	71 61	70 60	70 62	67 60	65 59	69 59	70 59	70 58	70 60	72 60	72 59	70 58	71 59	71 58	72 57	73 58	75 54	73 54	7 7 5 6	76 56	71 56	70 56	69 57	73 53	75 50	77 53	67 60	70 59	70 59			71.2 57.5
KAMUELA AIRPORT	MAX	71 59	73 60	71 60	72 58	71 57	70 56	72 59	68 58	72 58	72 61	71 59	71 56	72 57	71 52	72 50	72 55	72 54	72 55	74 56	75 56	72 57	71 56	70 56	74 52	74 50	73 55	69 59	70 58	71 57		1	71.6 56.4
KEAAU 92	MAX	76 69	83 69	78 69	83 66	83 66	83 66	82 6 <b>6</b>	82 65	83 63	87 67	81 65	81 65	81 65	80 62	81 65	82 65	83 65	84 65	84 65	84 65	81 65	80 64	83 63	83 63	83 63	83 63	83 63	80 68	78 65	79 65		81.8 65.2
KEALAKEKUA 26.2	MAX	79 68	8 <u>1</u> 6 7	8 1 6 5	82 65	81 65	80 65	81 73	82 71	81 70	81 73	82 71	82 69	80 62	80 65	81 64	79 66	77 62	82 66	78 63	81 66	80 65	80 70	79 63	80 66	81 63	79 62	75 65	80 70	79 66			80.0 66.4
KOHALA MISSION 175.1	MAX	78 69	81 69	75 70	77 65	79 66	78 68	80 66	77 68	79 67	78 67	78 65	78 66	78 67	79 67	79 68	80 65	80 67	81 67	84 68	81 66	79 66	76 65	76 66	77 65	79 64	83 66	67	78 69	76 66	76 67		78.6 66.7
KONA AIRPORT 68.3	MAX	85 68	84 67	85 65	86 65	86 65	85 66	84 66	85 64	85 64	85 64	85 64	84 64	84 65	85 63	85 63	83 64	84 62	81 63	84 64	83 65	84 62	83 63	84 62	84 62	83 64	85 64	84 63	84 63	84 63	84 62		84.2 64.0
KULANI CAMP 79	MAX	64 51	64 52	65 55	65 50	62 48	68 48	69 49	58 48	60 50	60 49	61 49	64 45	64 45	62 39	60 47	60 46	63 46	68 45	64 44		60 48			60 46	66 54	63 53	55 49	57 50	56 48			62.1 48.1
MAUNA KEA BEACH	MAX	91 75	8 8 7 2	88 73	92 81	91 74	91 75	90 71	90 74	94 75	94 74	95 71	93 68	93 70	89 68	91 70	91 70	87 69	86 69	86 69	88 74	88 72	93 70	91 71	92 68	85 67	86 69	83 68	92 75	89 76	88 72		89.8 71.7
MAUNA LOA SLOPE 085	MAX	52 36	48 37	50 34	52 31	5 <b>1</b> 3 3	54 32	53 35	54 38	52 38	51 37	54 33	53 34	53 36	53 35	56 36	56 36	50 34	45 33		50 34	47 30		46 30	44 30	44 32	4.4 3.5	48 36	49 35	51 33			50.1 34.0
MOUNTAIN VIEW 91	MAX	71 64	76 63	73 64	73 61	75 59	73 62	74 62	74 60	74 60	74 62	75 62	76 60	77 58	75 56	77 59	77 59	77 56	81 56	76 59	78 62	75 60	72 58	71 58	72 58	77 58	75 62	75 63	74 63	71 61	71 59		74.6 60.1
NAALEHU 14	MAX	79 70	83 67	84 68	84 68	84 65	84 65	82 69	82 70	81 69	81 69	81 69	81 69	81 66	81 65	81 67	81 66	81 67	81 67	81 67	83 67	81 65	79 64	79 64	79 64	79 64	79 64	82 64	77 66	79 67			81.0
OOKALA 223	MAX	74 69	81 68	78 68	76 66	78 69	78 68	81 66	79 67	80 65	80 66	70 66	69 65	80 65	79 67	79 67	82 68	80 67	78 74	78 77	81 67	80 66	78 65	79 66	80 67	79 65	80 65	73 65	78 67	77 67			78.1 67.2
OPIHIHALE 2 24-1	MAX	78 64	78 63	79 61	79 61	76 60	77 61	71 59	79 60	81 60	79 60	76 60	78 56	76 57	77 58	77 58	76 58	80 59	77 59	79 60	75 59	77 57	76 56	77 56	78 58	76 59	72 62	77 62	78 63	76 61	73 58	1	76.9 59.5

### **EVAPORATION AND WIND**

MAX 84 83 82 83 82 82 82 82 80 81 82 81 80 82 84 81 82 87 86 87 82 81 78 79 80 83 85 85 81 81 79 MIN 69 69 70 68 67 71 67 69 69 68 69 68 68 68 68 68 69 69 70 67 72 66 66 66 66 64 69 69 71

82.2 68.3

PAHALA 21

UPOLU POINT USCG 159.2

Station																Day	Of N	lonth															r r 'g.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * KAUAI																																	
LIHUE WB AIRPORT	EVAP WINO MAX MIN		149	138	227	22U 82	243 82	254	223 81	142	197 82	241 82	197 82	93 83	55 85	111		157 84	59 85	37 92	91 92	107 87		155 80	155 77	119	247 78	206 76	180 75	232 75			7.89 4802 81.8 65.8
15LAND OF OAHU																																	
HONOLULU OBSERV 702.2	EVAP WINO MAX MIN		34 89		56 88	52 87	65 86	72 85	61 83	78 87	73 86	54	•24 47 86 68	31 88	24 86		23 88		10 84	17	24	29 87	3 0 8 5	33 85	.18 29 86 69	.07 15 83 69	16	50 77	69 78	85			5.59 1285 85.9 68.0
* * * ISLANO OF HAWAII																																	
HILO WB AIRPORT	EVAP W1NO MAX MIN	39 88	53 82	+22 142 82 71	100	118	80	84	57 82	46	75 85	66	56 82	49 78	•13 50 81 64	83	·21 75 84 68	77 84	.08 48 83 69	58 85	53 86	51 80	38 78	80	.10 51 79 65	37 75 65	65 72 66	81	39 78	28	25 77		4.168 1747 81.1 66.5

NO. NO	SE TOPE	NO OI	SERVATION TIME AND TABLES			NO.	NO	GE 1	TUDE	NOL	OBSERV TIME TAB	AND	
STATION MOLECT DISTRICT	DRAINAGE LATITUDE LONGITUDE	ELEVATION TEMP.	EVAP. SPECIAL	OBSERVER	STATION	INDEX	NOISTRICI	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	EVAP. SPECIAL	OBSERVER
ALLXANUER RESV. 283 U140 02 KDLOA ANAHULA 1111 A 0149 01 KAWAINAU	2 21 57 159 32 1 22 09 159 19	1610	7A 6	MC BRYDE SUGAR CD.	KAUMALAPAU HARBOR 658 A	3461	OI LAHAINA OI LAHAINA	1 20 53 1 20 47	157 00	1640	W1 8A	c	DOLE COMPANY DOLE COMPANY
##YDL5#0C STA 985 A 02#0 02 KOLDA £A F LAWAI 93# A 0456 02 KOLDA KM 3 KESERVOIR 109#1 0465 02 KAWAIHAU ELEELE 927 A 0470 02 KOLDA	2 21 56 159 32 2 21 55 159 30 2 22 06 159 22 2 21 54 159 35	116 720 440 350 163	7A 7A 6A	LINUE PLANTATION CO MC BRYDE SUG CD LTD MC BRYDE SUG CO LTD LINUE PLANTATION MC BRYDE SUG CD LTO	LANAI CITY 672 LANAIHALE 684	5286 5301 5704 6012	DI LAHAINA OI LAHAINA	1 20 50 1 20 49 1 20 53 1 20 46 1 20 47	156 55 156 53 156 55 156 55 156 52	162D 3370 1430 1135 2040	7A 7A WI MO WI WM	E E	DDLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY
HALAULA IIIO A 0935 01 KAWAIHAU HALENANAHO 1006 A 1038 02 LIHUE HANALLI IUNNEL 1055 1170 01 KAWAIHAU HUKIPO 945 2161 03 WAIMLA	1 27 07 159 19 2 21 58 159 26 1 22 D5 159 28 3 21 59 159 41	253 490 1218 800	7A 8A 8A	LIHUE PLTN CO LTD GRDVE FARM CD LTD LIHUE PLTN CD LTD KEKAHA SUGAR CD LTD	ISLAND OF MAUL	0175	O2 HANA	2 20 37	156 20	2040 2060	VAR		DOLE COMPANY
ILIILIULA INTAKL 1050 2222 OZ LIHUE INTAKE WAINIHA DE 1786A 2227 O1 HANALEI KALIHIWAI RES 1131 — A 2974 OI HANALEI KANALOMULUHULU 1775 — 3099 O3 WAINEA	2 22 02 159 28 1 22 09 159 34 1 22 11 159 26 3 22 08 159 40	1070 690 400 3600 8	7A w1 7A 8A 7A	LINUE PLTN CD LTD MC BRYDE SUG CD LTD KILAUEA SUG PLTN CD KANALOHULUHULU R. S. LINUE PLANTATION	FIELD 46 474 HAELAAU 477 HALEAKALA 8 E S 434	D790	04 LAHAINA 04 LAHAINA 01 MAKAWAD 01 MAKAWAD 02 MAKAWAO	4 20 59 4 20 57 1 20 51 1 20 50 2 20 46	156 38 156 36 156 18 156 19 156 15	105D 298D 21D0 1850 7D30	7A 6A 8A 8A	C	MAUI PINEAPPLE CO. S MAUI PINEAPPLE COMPANY U OF HAWAII EXP STA HALEAKALA RANCH CO
KANEHA RESLAVOIR 1092 A 3104 DI KAMAIHOU KAPAA STABLES 1104 A 3159 DI KAMAIHAU KLALIA 1112 A 3982 DI KAMAIHAU K KAHA 944 4272 D3 MAIMEA KILAUEA 1134 451 DI HAMALEI	1 22 D8 159 22 1 22 D5 159 20 1 22 D6 159 19 3 21 58 159 43 1 22 13 159 25	175 9	7A 7A 8A 6A 7A	LIMBE PLAN CO LTD LIMBE PLIN CO LTD LIMBE PLIN CD LTO KERAMA SUGAR CO L70 KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	HALEAKALA SUMMIT 338.4 HALEHAKU 492.2 HALIIMAILE 423 HAMAKUAPOKO 485	1008 1016 1075	02 MAKAWAD	2 2D 43 1 2D 55 1 20 52 1 20 55	156 16 156 17	996D 690 107D 320	8A 8A 5A 5A	C	HALEAKALA NAT PARK U OF MICH MT HKALA DBSY PHIL SCDIT MAUI PINEAPPLE CD. HAWAIIAN COM + SUG CO
A LLAUEA FIELD 17 1135 A 4566 OI HAMALE!  KILAUEA POINI 1133 4568 OI HAMALE!  KITANO 1037.1 4650 O3 WAIMEA  KOLO 1033 4735 O3 WAIMEA	1 22 13 159 25 1 22 11 159 24 1 22 14 159 24 3 22 02 159 41 3 22 04 159 46	317 415 180 8# 215D 36	BA 7A	KILAUEA SUG PLTN CO  U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO LTD	HANA 354 HANA AIRPORT HANAHULI 281 HOLUA CA8IN 259.5 HONOKOHAU 480	1125	OI HANA OI HANA OI HANA O2 MAKAWAO	1 20 45 1 20 48 1 20 41 2 20 45	155 59 156 01 156 01 156 13	120 61 325 6930	8A 11A 7A MO	· ·	HARRY HASEGAWA HAWAIIAN AIRLINES KOALI RANCH HALEAKALA NATL PARK RGS
KOLOA 996 A 4750 02 KOLOA KOLOA MAUKA 994 A 4750 02 KOLOA KOLOA CRES 1137 A 4758 01 KARAIHAU KUPUJULA 935 A 4950 02 KOLOA LIHUE KOLOA LIHUE LIHU	2 21 55 159 28 2 21 58 159 29 1 22 11 159 23 2 21 54 159 3D 2 22 01 159 23	240 6×0 737 100 375	8A 7A 7A 6A 7A	GROVE FARM CO LTD GROVE FARM CO LTD KILAUEA SUG PLTN CO MC BRYDE SUG CO LTD HAWAIIAN SUGAR PL ASSN	HONOKOHUA 493 HONOLUA FLD 49 494	191	O LAHAINA O LAHAINA D LAHAINA DI MAKAWAO D WAILUKU	4 20 58 4 21 00 4 21 01 1 20 47 3 20 53	156 36 156 39 156 38 156 14 156 33	870 135 125 6280 1100	6 A 110		MAUI PINEAPPLE CO MAUI PINEAPPLE CO S MAUI PINEAPPLE CO HALEAKALA RANCH CO STATE DIVISION OF PARKS
LINUE 1020 A 5575 02 LINUE LINUE WB AIRPORT R 5580 02 LINUE MAKANULNA POINT 5785 02 KOLOA	2 21 59 159 22 2 21 59 159 21	207 103 Mt	7A MID 84	U S WEATHER BUREAU	KAHOMA INTAKE 374	2552	OF MAILUKU	3 20 54 1 20 51 1 20 54	156 38 156 26 156 16 156 13	2000 48 2520 700	MID MID MO 7A 7A		STATE DIVISION OF PARKS PIONEER MILL CO LTD U S WEATHER BUREAU E MAUI 1RR CO LTD E MAUI 1RR CO LTD
MAKAWELL 965   A 5864 03 WALMEA   A 5864 03 WALME	2 21 52 159 27 3 21 55 159 38 3 22 02 159 46 2 21 55 159 28 3 22 07 159 36 1 22 11 159 20	140 11 91 300 3500 330	9A MI: S	OLOKELE SUGAR CO KEKAHA SUGAR CO LTD GROVE FARM COMPANY U S GEO SURVEY LINUE PLANTATION CO.	KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEAHUA 410 KEANAE 346	3433 3576 3910 4091	0 = LAHAINA 02 HANA D3 MAKAWAO 01 HANA	4 20 53 2 20 39 3 20 52 1 20 50	156 38 156 08 156 23 156 10	1585 1020 460 980	W1 5A MO		PIONEER MILL CO LTD KAUPO RANCH HAWAIIAN COM + SUG CO E MAUI IRP CO LTD
MOUNT WAIALEALE 1047 6565 02 WAIMEA NIU RIUGE 1035 6850 03 WAIMEA N WAILUA DITCH 1051 6880 02 LIHUE N WAILUA RIVER 1055 6893 01 LIHUE	2 22 04 159 30 22 D2 159 44 2 22 04 159 28 2 22 04 159 26	5075 1250 6 1110 650	6 · 7 ·	U. S. GEO. SURVEY REKAHA SUGAR CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTO	KEAWAKAPU BEACH 260.2 KIHEI 3II KIPAHULU 258 KUKUI 380	4193 448: 4634	OI HANA	2 20 42 3 20 47 1 20 39 4 20 54	156 27 156 27 156 04	20 90 260	6P 7A 7A	7	A. L. CORELL HAWAIIAN COM + SUG CO KIPAHULU CATTLE COMPANY S MAUL PINEAPPLE CO
PH #AINIMA 1115 PRINCEVILLE RANCH 1117 PUEHL RIDGE 104D PUHI 1013 RESERVOIR 6 1004 A 8573 02 LINUE	1 22 12 159 34 1 22 13 159 29 3 22 01 159 42 2 21 58 159 24 2 21 57 159 27	101 295 1660 329 420	6A C 7A C 7A 8A 8A	MC BRYDE SUG CO LTO PRINCEVILLE RANCH KEXAMA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD	KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372	5003 5006 5177	0 = MAKAWAO	2 20 47 2 20 42 4 20 53 4 20 51 4 20 51	156 19 156 22 156 41 156 37 156 39	2520 3004 45 1280 220	7A 7A 7A 7A 7A 7A VAR 7A	c	KENNETH WILLEY KULA SANATORIUM PIONEE. MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD
RESERVOIR 6 1004 8 8976 02 LINUE 8 841 AWA 930 M 6 949 02 KOLDA 8 841 AWA 94 MOUNTAIN 990 A 8984 02 KOLDA 8 1AH LOWER 1054 8986 02 LINUE 8 1054 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	22 D4 159 27 2 21 54 159 34 2 21 58 159 31 2 22 01 159 27	740 215 2100 565 6	7A C MU 6A 8A	LIMUE PLANTATION CO. MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD LIMUE PLIN CO LTD	LUPI UPPER 442 MAHINAHINA 466 MALUHIA 482.2 MOFUPEA 475	5665 5715 6042	01 MAKAWAO 01 LAHAINA 03 WAILUKU 01 LAHAINA	1 20 53	156 15 156 4D	124D 715 1040 129	MO 7A	4	E MAUI 1RR CO LTD PIONEER MILL CO LTD 8 S OF A COUNCIL S MAUI PINEAPPLE CO
WAIAWA 94) 9253 03 WAIMEA WAILUA KAI 1065 A 9467 02 LINUE WAIMEA 947 9629 03 WAIMEA	2 22 01 159 28 3 21 59 159 43 2 22 02 159 21 3 21 57 159 41	780 10 50 20	8 A 7 A 8 A	LINUE PLTN CO LTD  KEKAHA SUGAR CO LTD  LINUE PLANTATION  WAIMEA SUG MILL CO	OLOWALU 296 OLOWALU GULCH 377 A	7040 7059 7066	01 MAKAWAO 0= LAHAINA 0= LAHAINA	4 20 51	156 38 156 36	34D 4127 7 80D	VAR VAR 7P MO		MAUI PINEAPPLE COMPANY MAUI CO WATER DEP7 PIONEER MILL CO- PIONEER MILL CO LTD
#E-T LAWAI 931 A 9955 02 KOLOA ISLAND OF OAHU ATEA FIELD 625 761 A UTI1 03 EWA	3 21 25 157 57	210	6A 7A	MC BRYDE SUG CO LTD	RAAKEA 350 PAJA 406 PANILEIHULU 259.2 A PAUWELA 490 POHAKEA BRIDGE 307.2	7194 7566 767- 7857 8060	02 HANA	1 20 49 1 20 55 2 20 41 1 20 55 3 20 49	156 07 156 23 156 08 156 19 156 31	1260 170 3570 485 167	6A 6A WI 7A 6A	1	E MAUI 1RR CO LTD HAWAIIAN COM + SUG CO KAUPO RANCH CO. HASEROT PINEARPLE CO. WALLUKU SUGAR CO
BERETANIA PUMPING STA 0211 02 HONOLULU CAMP 84 807 A 0300 03 EWA CHURCH COLLEGE LAIE 0340 01 KOOLAUPOKO COCONUT ISLAND 840-1 0350 01 KOOLAUPOKO	2 21 19 157 51 3 21 25 158 04 1 21 39 157 56 1 21 26 157 47	20 680 20 13 565	9A 6A 5P 8A	BOARD OF WTR SUPPLY DEL MONTE CORPORATION RICHARD COBURN U OF H MARINE LAB	PUOHOKAMOA 2 343 RUU KOKUI MAKAI 472		02 MAKAWAO 01 MANA 0= LAMAINA	1 20 50	156 2D	6150 2980 2500	VAR MO MO 7A		STATE DIV OF FORESTRY  E MAUI IRR CO LTD PIONEER MILL CO LTD HAWAIIAN COM + SUG CO
OMSETT HIGHLANDS 78c. 0438 02 HONQUULU EAR PLANTATION 741 0507 03 EWA HALAWA SHAFT 771.2 0964 02 HONQUULU HELEMANO INTAKE 861 A 1384 05 WAIALUA HOFILON 725.2 4 1540 03 EWA	2 21 21 157 50 3 21 21 158 02 2 21 23 157 54 5 21 33 158 00 3 21 24 158 06	42 BA 170 1274 2220	7A C	J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA AGR CO LTD H. V. VON HOLT	UKULELE 333	8553 8688 8742 8744	01 HANA 03 WAILUKU 0 MAKAWAO 01 MAKAWAO	3 20 53 1 20 46 3 20 54 3 20 46 1 20 48	156 03 156 25 156 23 156 15	2160 85 1310 5230	8A VAR MO		S EAST MAU! IRRIGATION CO HAWAIIAN COM + SUG CO KAONOULU RANCH HAIFAKALA RANCH CO
HONOLULU 085ERV 702.2 MHONOLULU MBAP 703 1919 02 HONOLULU HONOLULU SUBSTA 704 H S P A EXP STA 707 KAALAKET 1724.6 2269 D2 HONOLULU	3 21 19 158 00 2 21 20 157 55 2 21 19 157 52 2 21 18 157 50	5 7 MID 12 MID 50		U S COAST + GEODETIC U S WEATHER BUREAU ESSA-#EATHER BUREAU H S P A EXP STATION	UKUMEHAME 301 ULUPALAKUA RANCH 25D WAHIKULI 369 WAIEHU CAMP 484 WAIHEE VALLEY 482	9275	04 LAHAINA D2 MAKAWAO 0- LAHAINA 03 WAILUKU	3 20 55	156 35 156 24 156 40	75 1900 580 320	7A 8A 8A	¥	PIONEER MILL CO LTD ULUPALAKUA RCH CO LTD PIONEER MILL CO LTD WAILUKU SUGAR CO
KAHAKEI 724-6 KAHAWA 883 A 7462 01 KOOLAULOA KAHUKU 912 KALUA FIRE STA 791-3 KALHH RES -1TE 777 2900 02 HONGUULU	2 21 18 157 43 1 21 31 157 54 1 21 41 157 57 1 21 24 157 45 2 21 23 157 50	10 800 25 8A 1D	WI BA BA MID	MRS. MILLIE ZARATA WAIAHOLE WTR CO LTD KAHUKU PLTN CO KAILUA FIRE STATION BOARD OF WTR SUPPLY	WAIKAMOI 449 WAIKAMOI DAM 336 WAIKAPU 390 WAILUA IKI 348	9332 9335 937	OF WAILUKU DI HANA OI MAKAWAO O WAILUKU OI HANA	4 20 57 1 20 52 1 20 49 3 20 52 1 20 48	156 32 156 12 156 14 156 31 156 09	300 1200 4320 470 2630	VAR 6A	æ	WAILUKU SUGAR CO E MAUI IRR CO LTD MAUI COUNTY WTR DEPT WAILUKU SUGAR CO S EAST MAUI IRRIGATION CO
KAMEHAME 724.7 305. 01 KOULAUPOKO KAMEUHL MAULA 781 3113 01 KOOLAUPOKO KAPAKA MAKAI 995.1 322 01 KOOLAUPOKO KAPAKA MAKAI 995.1 322 01 KOOLAUPOKO	1 21 19 157 41 1 21 25 157 49 1 21 23 157 47	1380 225 7A 365	7A 8A	STATE HOSRITAL KANEOHE RANCH CO	WAILUKU 392 WAIOPAL RANCH 256 A ISLAND OF HAWAII	9484	D3 WAILUKU O2 HANA	3 20 54 2 20 38	156 30 156 12	200	8 8A OC		ST. ANTHONYS BOYS SCH HALEAKALA RANCH CO
KAPALAMA 773 A 3268 02 HONOLULU KAWAIHAPAI 841 A 3734 05 WAIALUA KAWAI 1KI INTAKE 880.2A 3741 05 WAIALUA KAWELA MAUKA 906.3 3825 02 KOOLAUPOKO	2 21 21 157 52 5 21 35 158 11 5 21 34 157 59	614 20 1180 1050	6 A 7 A W1	GEORGE H. SWIFT KAMEHAMEMA SCHOOLS WAIALUA AGR CO LTD WAIALUA AGR CO LTD HAWALI NATIONAL GUARD	AWINI 182.1 EAST HONOXANE 1838 HAINA 214	0190 0450 0840	05 N KONA 01 N KOHALA 01 S KOHALA 01 HAMAKUA	1 20 06	155 47 155 43 155 43 155 28	522D 187D 4240 461	MO WI MO 7A 7A 7A		GREENWELL RANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTD HONOKAA SUGAR CO
KOOLAU DAM 833 476 05 WAMIAWA LUALUALEI 804 5647 04 WAIANAE LUALUALEI WTR TUNNEL A 2650 04 WAIANAE	1 21 40 158 00 5 21 33 158 05 5 21 30 157 58 4 21 26 158 08 4 21 29 158 08	725 1160 113	7A 8A 7A WI	WAIALUA AGR CO LTD C + F OFFICER HEOG USN AMMUNITION DEP U S NAVY	MAKALAU 142 MALEMAUMAU 52 MALEPOMAKU 117 MALEPOMAKU 111 MAWAII VOLCNS NP HQ 54	1060 1065 1303		2 19 54 3 19 24 1 19 56 2 19 46 2 19 26 1 20 14	155 08 155 17 155 24 155 28 155 16	1D5 3648 5770 922D 3971	MO MO MO BA BA	i.	PEPEEKEO SUGAR CO. HAWAII NAT PARK KUKAIAU RANCH CO STATE DIV. OF PARKS HAWAII NAT PARK
UNALIZU 781-7  LUNALIZU HOME 724-2  MAKAHA KAI 796  MAYAHA VALLEY 800-1  MAYAHA VALLEY 800-1  MAYAHA VALLEY 800-1  MAYAHA VALLEY 800-1  MAYAHAWAE  MAYAPUR POINT 724  5055 01 KOOLAUPOKO  5760 02 HONOLULU  5780 02 HONOLULU	1 21 24 157 49 1 2 21 17 157 42 4 21 28 158 13 1 4 21 29 158 12 2 21 19 157 39	240 40 25 160 536 8A	7A 7A 8A 8A	MILNOR LUM LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARD	HILO WB AIRPORT B	1492 1557 1562	01 N KOHALA 02 S HILO 04 N KONA 04 N KONA		155 50 155 D4 155 55 155 59	3220	7A HID HID MO 7A	MIDI J	KOHALA SUGAR CO  U S WEATHER BUREAU STATE DIV OF FORESTRY VARIOUS RANCH HANDS
MANOA 712	2 21 19 157 39 2 21 19 157 49 2 21 20 157 48 1 21 21 157 46 2 21 21 157 54	220 650 410 20	8A M*O 9A	MRS.JOHN H.BEAUMONT BOARD OF WTR SUPPLY EXR. STA. H.S.R.A. JOHN A ROXBURGH	HONAUNAU 27 HONOHINA 137 HONOKANE 181.1 AONOMU MAUKA 138 HONUMULA 71	1701 1864 1960 2047	04 S KONA 02 N HILO 01 N KOHALA 02 S HILO 04 N KONA	2 19 56		1089 300 800 1100 6250	7A 7A 7A 7A HO	ļ,	MRS MALAE W HUA PEPEEKEO SUGAR COMPANY KOHALA DITCH CO LTD PEPEEKEO SUGAR CO. SIATE DIV OF FORESTRY
MOUNT KAALA RA4 6553 06 WAJANAE NUJANU RES 4 783 6928 02 HONOLULU NUJANU RESERVIJP 5 775 6933 07 HONOLULU OPAEULA 870 7150 05 WAJALUA PAJOLO VALLEY 718 7664 07 HONOLULU	4 21 31 156 09 2 21 21 157 49 2 21 21 157 50 5 21 34 158 02 2 21 20 157 46	4025 1046 410 1060 75	MIO VAR 7A MIO	FEDERAL AVIATION ADM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY WAITALUA AGR CO LTO BOARD OF WIR SUPPLY	HUALALAI 72 HUEHUE 92A KAALA IKI 12	2151 2156 2249	04 N KONA 04 N KONA 03 KAU 04 N KONA	4 19 42 4 19 45 3 19 08 4 19 30	155 52	8190 1960 1340 1330	110 6A 7A 8A		STATE DIV OF FORESTRY HUEHUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO.
PAUDA FLATE 784 7810 04 HONOLULU PEARL CITY TERCE 754-1 7933 03 EWA PORTLOCK ROAD 724-4 8128 02 HONOLULU PRI WANIAWA 820-2 8172 05 WANIAWA RUNALUU 884 8310 01 KOOLAU 0A	2 21 21 157 48 3 21 25 157 58 2 21 17 157 43 5 21 28 158 01	1640 240 6 700 8A	5P 8A C	BOARD OF JTR SUPPLY JAMES MUMENO GEORGE L. BRENNER PINEAPPLE RESEARCH INST.	KAHIAWAI 3.4 KAINALIU 738 KALAPANA NO I 67.8 KAMADA NO 2 5	2512 2751 2894 3046	D3 KAU 04 N KONA 02 S H1LO	3 19 D8 4 19 32 2 19 20 3 19 02	155 46 155 56 155 02 155 40	37D0 1500 10 1375	7A 7A VAR WI	ŕ	RUSSELL P. SMITH KONA EXPERIMENT STA HAWAII VOLCANOES NAT PK HAWAIIAN RANCH CO
PUNCHBOWL RATUR 707 8316 02 HONOLULU ST STEPHEN'S SEM 788 8600 01 KOOLAUPOKO TANTALUS PLAK 780 8730 02 HONOLULU	1 21 35 157 54 2 21 19 157 51 1 21 22 157 47 2 21 20 157 49 2 21 20 157 50	360 488 2000	8A 8A 7A	KAHUKU PLIN CO  NAT MEM CEMETERY REV R CULLINAN BOARD OF WATER SUPPLY		3300	OI S KOHALA D5 S KOHALA O3 KAU O2 PUNA	1 20 01 5 20 00 3 19 17 2 19 3D		2670 2665 2140 290	6A 6A 8A 8A 6 VAR		PARKER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARD DF WATER SUPPLY
#JNIV OF HAWAII 713 #815. 02 HONOLULU WAHIAWA OAM 863   6945 05 WAHIAWA WAIAHOLE 837   8964 01 KOOLAUPOKO WAIALAL KANALA 715   91851 02 HONOLULU	2 21 10 157 49 5 21 30 158 03 1 21 28 157 53 2 21 17 157 47 5 21 35 158 07	1325 79 854 745 40	7A 8A 7A 6A C	R. E. WHITE DEPT. OF GEOSCIENCE WAIALUA AGR CO LTD WAIAHOLE WIR CO LID SPENCER TINKER	KAUMANA 88.1 KAWAINUI LOWER 193 KEAMU 92 KEAIWA CAMP 22.1 KEALAKEKUA 26.2 KEANAKOLU CAMP 124.2	3770 3872 3925	02 S HILO 01 HAMAKUA 02 PUNA 03 KAU 04 S KONA	2 19 41 1 20 05 2 19 38 3 19 14 4 19 30	155 D9 155 39 155 D2 155 29 155 55	1123 1D8D 28D 1700 1450	VAR WI 8A 8A	4	SHIGEO MASUYA HONOKAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COMPANY MISS AMY GREENWELL
MATALUA 847 A 9199 05 MATALUA WATANAE 728 9231 0 MATANAE WATANAE MAUKA 803 A 9238 04 WATANAE MATANAE 836 A 9261 03 UM	4 21 27 158 11 4 21 29 158 09 3 21 28 157 56	40 32 7 20 1575 800	7A 7A 8A WI WI	WAIALUA AGR CO LTD CAPITAL INVEST CO	KEANAKOLU CAMP 124-2 KEMENA 181.2 KEMENA RESERVOIR 176-14 KIOLAKAA A + F 6 FIRA 89-2	409B	02 HAMAKUA	2 19 55	155 21	5280 3840 2520 1925 1490	WI 7A Mc WI	*	KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD STATE DIV OF FORESTRY MAUNA KEA SUGAR CO.
MAIKANE 885 A 9940 OI KOOLAUPOKO MAIKIKI 717-2 9495 OZ HONOLULU MAILUPE PLEFENOTE 17 A 9495 OZ HONOLULU MAILUPE VLY SCH 723-6 9500 OZ HONOLULU MAIMANALO 794 A 9521 OI KOOLAUPOKO	1 21 30 157 53 2 21 16 157 45 2 21 18 157 45 2 21 18 157 45 1 21 21 157 44	760 10 8A 170 180	WI BA WI C	WAIAHOLE WIR CO LTD WAIAHOLE WIR CO LID HONOLULU ZOO BOARD OF WIR SURRLY WAILURE VALLEY SCHOOL	KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175.1	467D 4675 468D	01 N KOHALA 01 N KOHALA 01 N KOHALA	1 20 14 1 20 13 1 20 14	155 47 155 47 155 48	309 960 537	8A 7 7A 7A		KOHALA SUGAR CO KOHALA SUGAR CO K. LYMAN BOND
MATMANALO 794 A 9521 OI ROOLAUPON MATMA 872 A 9530 OS MAIAUN MATMANALON AND AND AND AND AND AND AND AND AND AN	1 21 21 157 44 5 21 38 158 04 3 21 23 158 01 2 21 18 157 47	60 420 59 1100	7A C 8A MID	ST DIV WTR + LAND DEV WAIABUA AGR CO LTD OAHU SUGAR CO BOARD OF WTR SUPPLY	KONA AIRPORT 68.3 KUKALAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 206	4764 4815 4928 4938	OI HAMAKUA O4 N KONA OI HAMAKUA OI HAMAKUA OI HAMAKUA	1 20 05 4 19 39 1 20 02 1 20 07 1 20 08	156 D1 155 21 155 35 155 34	720 15 840 980 300	8A 8A 6A 6A 6A	3	HONOKAA SUGAR CO HAWAITAN AIRLINES HAMAKUA MILL CO HONOKAA SUGAR CO HONOKAA SUGAR CO
KALAUPAPA 56\ ZB76 01 MOLOKAI KAMALO MAUKA 542-6 3046 01 MOLOKAI KAUNAKAKAI 516 A 3561 DI MOLOKAI	1 21 12 156 59 1 21 04 156 52 1 21 06 157 01	30 60 12	RAI 6A	KALAUPAPA SETTLEMENT W. J. CARSTEN MOLOKAI RANCH LTD	KULANI SCHOOL SITE 78 A	5011	02 S HILO 05 N HILO 02 S HILO	2 19 33 5 19 35 2 19 35 1 20 01	155 18 155 27 155 20 155 41	5170 8300 5735 2615	BA BH	*	ST DEPT OF SOCIAL SER U.S. WEATHER BUREAU ST. DEPT OF SOCIAL SER
FAUMAKAKAI MAUKA 536.5 354.7 01 MOLOKAI K CNILILE PENS 551 A 4394 01 MOLOKAI KJALAPUU 534 A 4778 01 MOLOKAI MAPJLENU 542 6138 01 MOLOKAI	1 21 06 157 01 1 21 12 157 12 1 21 09 157 02 1 21 04 156 48 1 21 08 157 13 1 21 09 157 06	70 560 878 20 1075	WK. 7A C 8A 9A C	MOLOKAI GENERAL HOSRITA MOLOKAI RANCH: LTD. DEL MONTE CORPORALION H S P A	LANIHAU 68 C LAVA TREE PARK 66+1 MANUKA 2 MAUNA KEA BEACH	5460 6134 6180	DI S KOHALA 04 N KONA D2 PUNA 03 KAU 04 S KOHALA	4 19 40 2 19 29 3 19 07	155 58 154 54 155 50	153D 65D 1760 103	8A 8A 8A		STATE DEPT OF L + N RES KONA EXPERIMENT STATION STATE DIV- OF PARKS STATE DIVISION OF PARKS U S WEATHER BUREAU
HAUNALUA 311 6190 01 HOLOKAI MOLOKAI AP 324 6534 01 HOLOKAI PUUOMORU BANCH 542±1 8549 01 HOLOKAI WAIKOL 54 A   9404 01 MOLOKAI	1 21 09 157 06 1 21 09 156 44	70D	BA 6A C Tw C	LIBBY MCNEILL + LIBBY ALOMA AIRLINES PUUOMOKU RANCH MOLOKAI RANCH	MAUNA LOA SLOPE OBS MIDDLE HOLUALOA 68-1 MIDDLE PEN 147-1 MOAULA 18	6270	05 HAMAKUA 04 N KONA 01 N KOHALA 03 KAU	5 19 32 4 19 37 1 20 06 3 19 11	155 5D	11146 475 1380 600	MID MID 8A VAR MO		U S WEATHER BUREAU KONA EXPERIMENT STA KAHUA RANCH HAWAIIAN RANCH CO

DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO INTRA-ISLAND DIVISIONS) LANAI: 1-(NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Rosoliul, Hawaii, or to any Weather Bureau Office mear you

OIMENSIONAL UNITS Unless otherwise indicated, dimensional units used in this bulletin are Temperature in 'F, precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant wind is the vector cum of wind directions and epeced divided by the number of observations.

OBSERVATION TIME: Oats in the "Monthly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station index. The Station Index shows observation time in loca

EVAPORATION is measured in the etandard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. Max and Win in "Evaporation and Wind" table refer to extremee of temperature of water in pan as recorded during 24-hours ending at time of observation

NORWALS for all stations are climatological etandard normale hased on the period 1931-1960.

DELAYED OATA AND CORRECTIONS will be carried only in the June and December issuee of this hulletin.

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- No record in the "Supplemental Outs" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates
- ++ Highest observed one minute windepeed. This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unkno
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station Index"; indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for date of measurement. Where gages are read only once monthly, measuremente made on the first of a month are credited to the last day of the preceding month.
- H Adjusted to a full month. J "Supplemental Data" table.
- M One or more days of record miesing, if average value is entered, 188e than 10 days record is miseing See "Daily Temperature" table for detailed daily
- T Trace, an amount too small to measure.
- V [ncludes total for previous month
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
- AR Observation made after rain
- C In Special Column of Station Index indicates Recording Rain Gage Station. Bourly precipitation values are proceeded for spacial purposes, and are published later in the "Bourly Precipitation Data" bulletin. If daily amounts are published in "Climatological Data" bulletin they are from a separate non-recording gage, except where indicated by reference "R". Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" bulletin.
- WO Gage read once monthly, usually on the last day
- OC Gage readings at periods varying from a few weeks to several months
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- VAR Observation time is variable.
- WI Gage read weekly or irregularly only.
- WM Gage read weekly and last day of month.
- # Thermometere are generally exposed in a shelter located a few feet shows sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a huilding.

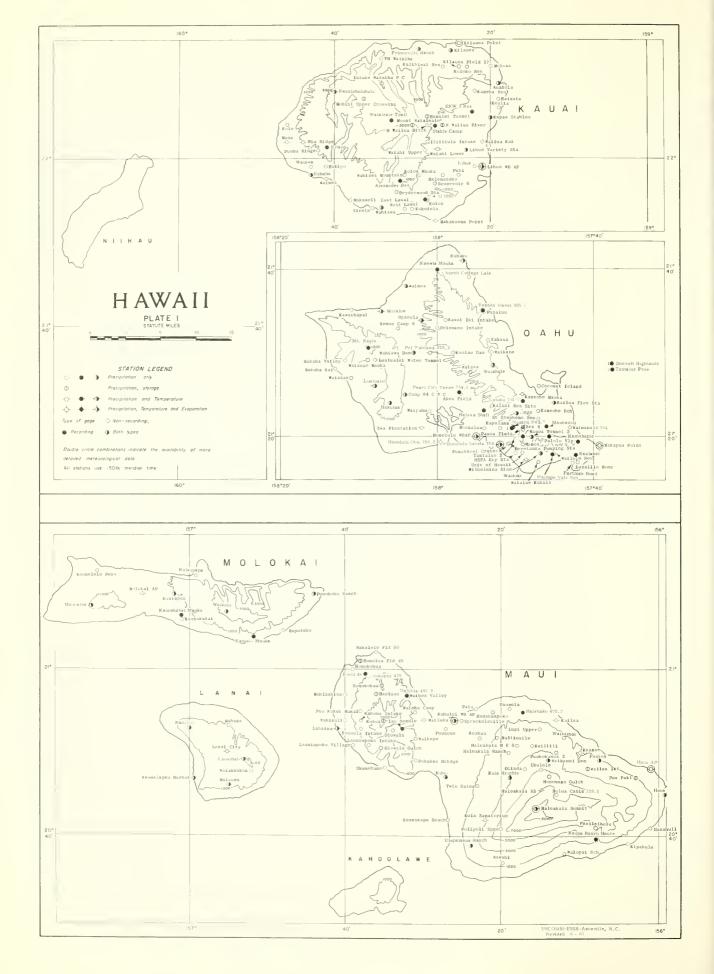
Stations appearing in the Index, but for which data are not lieted in the tables, were either missing or received too late to be included in this issue

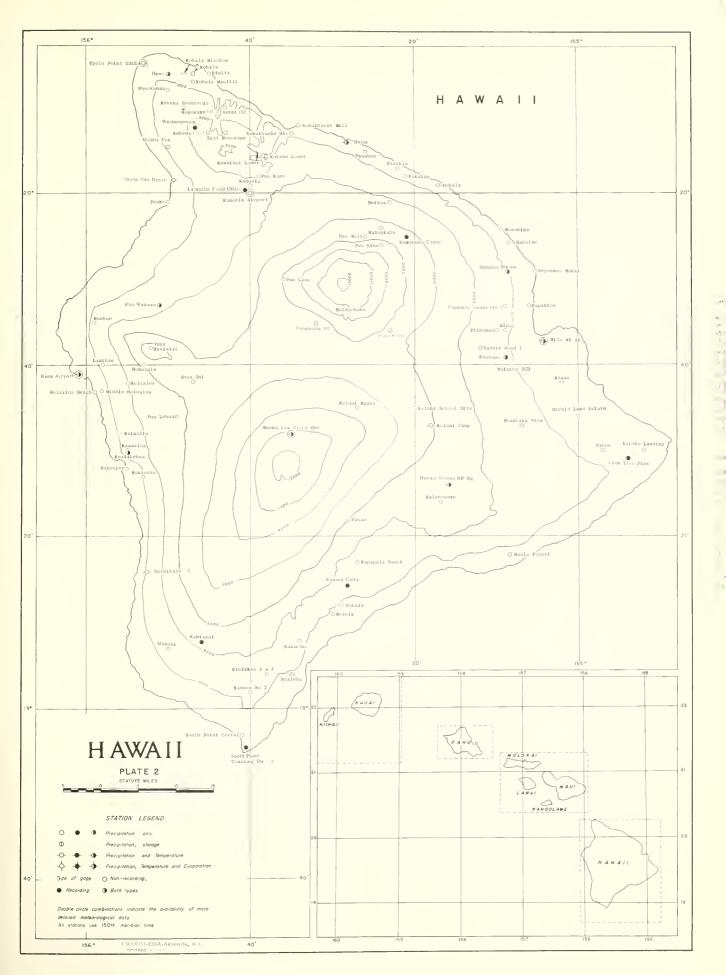
General weather conditions in the U. S. for each month are described in the publications WOWTELT MEATHER REVIEW, WOWTELY CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM OATA, all of which may be obtained from the Superintendent of Documente, Government Printing Offics, Washington, D. C. 20402.

Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Bistory" for this State, price 40 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Oats, price 16 cents. These publications may be chitained from the Superintendent of Documents at the address shown above.

Subscription Price. 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly euhscription includes the Annual Summary.) Checks and ac orders should be made payable to the Superintendent of Documente. Remittance and correspondence regarding subscriptione should be each to the Superintendent of Documents, Government Printing office, Washington, D. C. 20402.

USCOMM-ESSA-ASHEVILLE-3/1/68-89







HAWAII

DECEMBER 1967

Volume 63 No. 12

U.S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION APR 16 3.

CLIMATOLOGICAL DATA

Stotion  * * * ISLAND DF (AUAI  ANAHDLA 1111  KANALOHULUHULU 1075  KAPAA STABLES 1104  KILAUEA POINT 1133  KOLDA 936  LIMUE WE AIRPORT  MANA 1026  N WAILUA DITCH 1051  PH WAINIHA 1115  PUEHU RIOGE 1040  WAIAHA 930  A AIREA 930  LUBLUALU OBSERV 702.2  HONDLULU WBAP 703  KAHUKU 912  HONDLULU WBAP 703  KAHUKU 912  LUBLUALEI 804  MAKAPUU POINT 724  NUUANU RES 4 783  OPAEULA 870	76.6M	Wiltimum 50.5 66.2 63.8 64.9	56.6 72.6 69.9 71.8	Departure From Narmal	79 85	7.	59 56 60	29• 15•	M	32 or 6elow	Mi	n. 10 0 0 0 0 0	14.24 40.18 12.64 15.97 12.95 11.51 12.70 10.83	8.84 6.46 3.89 7.61	7.55 2.26	B 6	Total	0 0 0 0	Date	ar Mare	20 or Ware	9
ISLAND DF CAUAI  ANAHDLA 1111  KANALOMULUHULU 1075  KAPAA STABLES 1104  A KILAUEA FIELD 17 1135  KILAUEA POINT 1133  KOLDA 936  LIHUE WB AIRPORT  MANA 1026  N WAILUA DÎTCH 1051  PH WAINTHA 1115  PUEHU RIOGE 1040  WAHTANA 930  AWAIAHI LOWEP 1054  WAIMEA 947  ISLAND  *  *  *  *  *  *  ISLAND  DEBUT OBSERV 702*2  HONDLULU OBSERV 702*2  KANEGUE MAUKA 781  KODLAU OAM 833  LUALUALEI 804  MAKAPUU POINT 724  NUUANU RES 4 783	76.0 76.0 76.6 76.6 80.0	50.5 66.2 63.8 64.9	56.6 72.6 69.9 71.8	Departur	68 86 79 85	7+ 28+ 22+	<b>41</b> 59 56 60	27+ 29	0	32 or 6elow	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	O O O	14.24 40.18 12.64 15.97 12.95	Debauture  Pedau Notw  Fram Notw  4 6 4 6  3 8 9 7 6 1	7.55 2.26	9 8	.0.0	00000000000000000000000000000000000000	Date	20	15	9
ISLAND DF (AUAI  ANAHDLA 1111  KANALOHULUHULU 1075  KAPAA STABLES 1104  KILAUEA FIELD 17 1135  KILAUEA POINT 1133  KOLDA 936  LIHUE WB AIRPORT  MANA 1026  N WAILUA DÎTCH 1051  PH WAINIHA 1115  PUEHU RIOGE 1040  WAHIANA 930  AUAIMEA 947  ISLAND  * * * ISLAND  ISLAND OF DAHU  HONDLULU OBSERV 702*2  HONDLULU OBSERV 703*  KAHUKU 912  KANEOHE MAUKA 781  KADOLAU DAM 833  LUALUALEI 804  MAKAPUU POINT 724  MUUANU RES 4 783	79.0 76.0 76.6 76.6 M	66.2 63.8 64.9	72.6 69.9 71.8	- 2.3 3	86 79 85	28+	59 56 60	29 29• 15•	0	0	0	0	40.18 12.64 15.97 12.95	5.46 3.89 7.61	2.26	8	0000	0 0 0 0 0		18	8	
KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELD 17 1135 A KILAUEA FIELD 17 1135 A KOLDA 936 LIHUE WB AIRPORT R MANA 1026 N WAILUA DITCH 1051 PH WAINIHA 1115 PUEHU RIOGE 1040 WAIAHA 930 WAIAHI LOWER 1054 WAIMHA 947  ISLANO  "ISLANO"  "ISLANO"  "ISLANO"  "ISLANO"  "ANDOLULU OBSERV 702.2 HONDLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU 0AM 833 LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783	79.0 76.0 76.6 76.6 M	66.2 63.8 64.9	72.6 69.9 71.8	= 2.3 = .3	86 79 85	28+	59 56 60	29 29• 15•	0	0	0	0	40.18 12.64 15.97 12.95	5.46 3.89 7.61	2.26	8	0000	0 0 0 0 0		18	8	
LIHUE WE AIRPORT R MANA 1026 N WAILUA DITCH 1051 PH WAINIHA 1115  PUEHU RIGGE 1040 WAITA-A 930 WAIAHI LOWER 1054 WAIMEA 947  ISLANO SERVICE OF CAHU  HONOLULU OBSERV 702.2 HONDLULU WBAP 703 KAHUKO 912 KANEOHE MAUKA 781 KODLAU OAM 833  LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783	76.6M	64.9 60.8M	71.8 68.7M	= 2.3	85	5	60	15+					12.79	7.61			.0	0			6	
AMAIAMA 930 AMAIAMI LOWEP 1054 MAIMEA 947  ISLANO  * * * ISLAND OF DAHU  MONOLULU OBSERV 702.2 AHUKU 912 KANEGOHE MAKKA 781 KODLAU DAM 833  LUALUALEI 804 MAKAPUU POINT 724 NUUANUN RES 4 783	80.0 M				80	20•	52						31.52	17.93	9.71	10	.0	0		19	7	1
ISLAND OF DAHU  HONOLULU OBSERV 702 2  HONOLULU WBAP 703 R  KAHUKU 912  KANEOHE MAUKA 781  KODLAU OAM 833  LUALUALEI 804  MAKAPUU POINT 724  NUUANUN RES 4 783	M	68-0	67.9					28+	0	0	0	0	14.41 7.99 21.77 9.33	3.50 5.98	3.65 3.90 1.73	9 9 17	.0 .0	0000		11 19 12	6 14 7	
ISLAND OF DAHU  HONOLULU OBSERV 702 2  HONOLULU WBAP 703 R  KAHUKU 912  KANEOHE MAUJAA 781  KODLAU OAM 833  LUALUALEI 804  MAKAPUU POINT 724  NUUANUN EES 4 783	M	68.0				1						1	16.64				• 0					
HONDLULU WBAP 703 R KAHUKU 912 KANEOHE MAUKA 781 KODLAU OAM 833 LUALUALEI 804 MAKAPUU POINT 724 NUUANU RE5 4 783	M	68-0																				
MAKAPUU POINT 724 NUUANU RES 4 783		67.1	74.0 M 72.1	.0	85	6	56		0	0	0 0 0	0 0 0	8.20 9.93 # 17.56 15.35	6.94 10.71 5.35	3.21 3.77 6.39 3.13	18	.0 .0 .0	0 0		8 9 20 17	4 7 7 7	
PALOLO VALLEY 718	75.6 M	67.7 M	71.7 M		80	21	62	29	0		0	0	4.82 17.28 18.08 * 27.58	13.97 7.02 14.27	1.57 9.63 6.98	18	.0 .0 .0	0		7 11 18 20	3 4 6	
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA OAM 863 WAIAHDLE 837 A	77.0	61.6	69.3	• 7		21		29	0		0	0	* 21.38 7.89	7.09 3.95	2.65	10	.0 .0 .0	0		9	5	
WAIKIKI 717.2	81.4	66.2	73.8	•	86			28+	0				14.06		8.21		.0	0		8	3	
WAIPAHU 750 A			72.1										8.84	5.30			•0					
ISLAND  * * * ISLANO OF MOLOKAI			1201														•••					
KUALAPUU 534 A MAPULEHU 542 MAUNALOA 511 MOLDKAI AP 524	77.1	66.7	71.9		82	7	56	28	0	0	0	0	10.43 9.53 * 8.87	6.17 5.32	1.84		.0 .0	0		13	5	
ISLANO			71.9										9.94				• 0					
ISLAND OF LANAI																						
LANAI CITY 672	73.5	62.1	67.8	1.3	77	29+	56	13	C	0	0	0	9.46	5.74	4.26	10	.0	0		12	4	
ISLAND			67.8										9.46				• 0					
# # # ISLAND DF MAUI																						
HALEAKALA B E S 434 A HALEAKALA PS 338 HANA AIRPORT HONDKOHUA 493 A	58.4 78.7	42.8 66.4	50.6 72.6			25+	59	15+	0	0	0	0	11.20 10.55 6.50 10.92	6.27	1.70 3.04 1.65	10	.0	0		15 14 15	10 6 4	
KAHULUI WB AP R	78.2	64.5	71.4	- 1.3		27		28	C			0	5.09	2.39	2.67		•0	0		16	6	
KAILUA 446 KEANAE 346 A KIPAHULU 258 KULA SANATDRIUM 267 LAHAINA 361	69.3 80.5	55.3	62.3	.0		18	46	27	C	0	0	0	14.00 6.54 9.02 7.92	= 8.32 = 4.37 5.99 5.63	1.42 2.20 2.75	10 10 10	.0 .0	0		12	6 5	
PAIA 406 WAILUKU 392	80.0	62.8	71.4	- 1.2	86	23+	56	29+	c	0	0	0	7.46	3.24	1.33	11	.0			15	5	
I SL AND			67.3										8.92				•0					

### CLIMATOLOGICAL DATA

HAWAII DECEMBER 1967

CONTINUED				Ten	perof	ure										Preci	oitation					
									١	lo. of	Doys						Sno	w, Sleet		И	lo. of	Doys
Stotian	Average Maximum	Average Minimum	Average	Deporture Fram Narmal	Highest	Date	Lawest	Date	90° or Above	-	32° or Below	- 3	Tatal	Departure Fram Normal	Greatest Day	Date	Total	Max. Depth an Graund	Date	.10 ar Mare	.50 ar Mare	1.00 ar Mare
ISLAND OF HAWAII																						
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT R HUEHUE 92A A KAINALIU 73B	77.4 65.0 80.6	62.4 52.6 65.9	69.9 58.8 73.3	3 .1 1.8			46 61	30+ 12 12	0 0	0 0 0	0 0 0	0 0 0	7.23 19.22 17.10 3.17 4.79	47 9.08 1.92 .81 1.78	1.87 3.27 4.60		.0 .0 .0	000000000000000000000000000000000000000		10 17 16	6 11 8	1 8 4
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEMENA RESERVOIR 176.1 A KONA AIRPORT 68.3	70.1 80.5 77.8 82.0	51.6 62.8 64.7 63.9	60.9 71.7 71.3 73.0	•7	87 84	18 26+ 18	58 60	15 14 26 15	0 0 0	0 0	0 0 0	0 0 0	4.76 17.66 3.57 7.55 3.04	1.49	2.09 4.58 1.73	10	.0 .0 .0	0		7 17 7	3 10 2	1 6 1
KUKUIHAELE HIC 199 KULAN1 CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107 A	63.1 84.0 76.9	45.9 67.3 62.6	54.5 75.7 69.8	3	91	26+ 3 26	60	27 3 23+	0 2 0	0 0	0 0 0	0	5.04 18.78 3.96 11.64 2.23	7.21	1.60 3.10 2.20 2.38 1.03	7 10 8	.0 .0 .0	0 0 0 0		12 5 11	3 7 1	2 1 4 1
PUAKO 95A PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCD 88.2													3.85 4.52 6.12 30.12	2.82 - 5.37	2.26	7	.0 .0	0000		14	10	7
ISLAND			68.0										9.18				•0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 91° ON THE 3D AT MAUNA KEA BEACH, HAWAII

LOWEST TEMPERATURE: 25° ON THE 13TH AT MAUNALOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 40.18 INCHES AT KANALOHULUHULU, KAUAI

LEAST TOTAL PRECIPITATION: 2.21 INCHES AT MIDDLE HOLUALOA 68.1, HAWAII

GREATEST ONE-DAY PRECIPITATION: 10.71 INCHES ON THE 18TH AT PORTLOCK ROAD 724.4, OAHU

### SUPPLEMENTAL DATA

			Wi Speed -	nd m.p.h.	)		Relati		idity ave	rages -		Num	ber of d	lays with	precip	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150°		DIAN TIM	иЕ 8 Рм	Trace	.01–.09	1049	.5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILC. HAWAII. WR AIRPORT	20	2.0	8.0	29	SE	16	84	79	71	82	2	1	8	4	2	2	19	31	6.9
HONOLULU, OAHU, WA AIRPORT	0	3.4	10.0	31	SE	17+	80	78	62	75	7	8	2	5	0	2	24	52	6.8
KAHULUI, MAUI, WB AIRPORT	5	2.6	12.0	34	N	13	90	89	72	86	7	3	9	1	1	0	21	69	6.6
LIHUE . KAUAI. WR AIRPORT	7	1 + 8	12 • 8	34	SW	23	87	86	75	84	3	8	6	3	1	2	23	40	7.3

#### SPECIAL WEATHER SUMMARY

December was characterized by several periods of severe weather, particularly over Kauai and Oahu.

The first of these occurred on the 9th when rains of up to 10 inches, chiefly in windward and mountain areas of Oahu, caused widespread flooding. In Waimanalo, Waimanalo Stream overflowed, rendering some streets impassable. In Honolulu, water reached car-door levels at Moanalua Gardens and covered Salt Lake Bridge and parts of Kapiolani Park. On Kauai, the Hanalei and Kokee areas reported mudslides and flooded roads, but no major damage. A blinding snowstorm, accompanied by strong winds, hit the upper slopes of Mauna Kea, blocking the road, damaging construction equipment and installations, and further delaying work on the new astronomical observatory at the summit.

On the 12th, a cold front brought a variety of weather to many parts of the State. As the front moved rapidly down the island chain, strong and gusty northwesterly winds behind it damaged banana and other fruit trees on Kauai, while on Oahu, wind and waves snapped many boats from their moorings and sank a \$7,000 yacht, after smashing it against the dock in Keehi Lagoon. Haleakala Summit, on Maui, was visited by wind gusts to 62 m.p.h., and by hail and freezing rain which coated roads, buildings, scientific facilities, and the television transmitter with ice up to 6 inches thick. And as the front passed over Hawaii Island, winds blew a mango tree onto a house at Laupahoehoe, doing \$4,000 worth of damage.

The most severe weather of the month occurred on the 16th to 18th, and was associated with the combination of a Kona low north of the islands, a strong slowly moving cold front to the northwest, and a deep low pressure system in the upper atmosphere.

During the period, strong, gusty southerly winds again seriously damaged the banana crop on Kauai, and resulted in numerous power failures on Kauai and Oahu as wind-blown branches contacted powerlines.

Shortly after 4:30 a.m. on the 17th, what was probably a small tornado embedded in strong southerly winds in advance of an approaching cold front, swept northward onto Kauai's southwestern coast, carving a swath approximately 200 feet wide and 2-1/2 miles long through the small plantation village of Kaumakani (population 1,200), and into the sugarcane fields beyond. Thirty-eight homes were damaged, a number of them badly, 4 or 5 beyond reasonable repair,

and there was considerable lodging of sugarcane. Three large coconut palms were broken off 3 to 10 feet above the ground, and the tops never found. Civil Defense estimated the damage at approximately \$300,000.

Although the path of the storm, as clearly defined by aerial photographs, closely resembled that made by small tornadoes in the contiguous U. S., a Weather Bureau team which visited the area could find no clear-cut evidence of rotary motion in the distribution of debris. Several persons reported hearing sounds similar to those made by jet aircraft, but no funnel cloud had been sighted, probably due to darkness and the early hour. That unusually strong southerly winds had also affected other parts of Kauai's southern coast at about the same time, was evidenced by minor roof damage at points as far apart as Poipu Beach and Kekaha.

Beginning late on the 17th, and continuing through the early 18th, severe thunderstorms deluged Rainfall was heaviest over the southeastern portion, where as much as 10 inches of rain fell within a few hours, and least along the west and northwest coasts, which received only 1/2 inch to 2-1/2 inches. One gage (Kaalakei) in the Kuliouou area of southeastern Oahu, reported about 2.2 inches of rain in 40 minutes, between 3:35 and 4:15 a.m. on the 18th, and 7.05 inches between 12:30 a.m. and 4:15 a.m. On the windward side, Kailua Fire Station had 2 inches in 50 minutes and 6.2 inches in 4 hours and 45 minutes. During the height of the storm, Maunawili recorded about 1 inch in 10 minutes. Rains of these intensities occur on the average only once in 25 years on eastern Oahu.

The heavy rains brought widespread flooding to Waimanalo and to the Koko Head, Kuliouou, Niu Valley, Aina Haina, and Waialae-Kahala areas of Honolulu. Niu Valley was hardest hit, as storm culverts, blocked by large boulders and other debris, sent flood waters rushing into adjacent homes, sweeping several from their foundations and making it necessary to evacuate 200 residents to Niu Intermediate School. Also in Niu Valley, lightning struck a coconut tree and transmission line. On Wailupe Place, water stood nearly knee-deep throughout the 18th. Kalanianaole Highway was impassable in many places, and flood waters swirled under the new Kaimuki viaduct. In Waikiki, several cars were submerged in the basement parking lot of a hotel. The city and county of Honolulu estimated damage to private property and public facilities at over \$900,000, including the post-storm clean-

#### HAWAII - DECEMBER 1967

### SPECIAL WEATHER SUMMARY - Continued

December's rainfall total was well above normal nearly everywhere in the State, except along Maui's northeastern coast and in Hawaii's Kohala and Hamakua districts. In southeastern Oahu, leeward Kauai and Maui, a number of gages reported between 3 and 5 times their December normals.

Stations with 25 years or more of record, and that exceeded their previous 24-hour or monthly record totals for December, are listed below:

# Stations Whose Previous Greatest December Rainfall Totals were Exceeded in December 1967

#### (25 years of record or more, only)

Station	Length of Record (yrs.)	Previous Greatest Dec <b>e</b> mber Total	December 1967
KAUAI			
N. Wailua Ditch	39	33.90	35.26
OAHU			
Kaneolie Mauka	38	17.39	17.56
Punaluu	27	15.05	15.95
Waimanalo	67	18.86	23.10
Wilhelmina Rise	39	15.60	17.90

# Stations Whose Previous Greatest 24-Hour Rainfall Totals were Exceeded in December 1967

#### (25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous December 24-Hour Extreme	December 1967
OAHU	(115.)	24-Hour Extreme	December 1907
HSPA Experiment Station	49	7.21	8.04
Laie	57	4.22	6.52
Makapuu Point	54	3,25	9.63
Manoa	48	6.08	9.43
Manoa Tunnel	39	6.86	9.84
Palolo Valley	39	6.70	10.60
Wilhelmina Rise	39	4.58	9.56 *
HAWAII			
Kaumana	28	8.75	9.95

<sup>\*--</sup> Greatest 24-hour total in any month.

Saul Price ESSA-Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811 Russell Dorr ESSA-Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

	T	Τ								_			-	/ > *															OECE	MBER	196
Station	Total	1	2 3	4	5	6	7	8	9	10	11	12		of Mo	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLAND OF KAUAI																															
NAMOLA 1111 A RYOESWOOD STA 985 A AST LAWA! 934 A LEELE 927 A ALAULA 1110 A	11.15 6.74 15.32	.34 .14 .15		.7: 1.7! 1.7: .5:	2 .01	.11 .10 .01	.10 .16 .05	.74 1.00		:	3.21 1.96 1.40 8.69	.15 .04 .09 .03 .38	.07	.03	.08 .01		*	2.00 1.62 1.22 1.19 2.56	.05 .10 .03 .07	*16 *02 T	•01		:	:	*	1.52 3.05 2.99 2.14 1.50	.02 T	.04	.50 .85 .42	:	
ALENANAHO 1006 JKIPO 945 LIILIULA INTAKE 1050 JTAKE WAINIMA PC 1086 ALIHIWAI RES 1131	10.62 30.59 37.85 17.39	.68 2 1.07 .35	16 1.	1.16 45 .9° 6.86 1.50	7 .86	*77	.10 .37	1.10 1 .72 4 .53 .07	* 1	3.90 0.04	.66 5.23 8.99	.10 .09 .19	.01	.07	2.03	*	1.88	1.87 3.26 .61 .93 2.70	.12 .08 .21	.05 *		.04	1.86	4.14	2.02 1.80	3.45 4.04 .74	.07		.93 .93	.56 .8	1.3
ANALOHULUHULU 1075 ANEHA RESERVOIR 1092 APAA STABLES 1104 EALIA 11I2 EKAMA 944	12.64 13.06 8.97	.32		28 .10 1.10 .5: .6!	37 2 .10 5 .11	.10	.10	.52 .53 1.30 .60 1			3.04	.58 .35 .10 .18	.96	.96 .04 .08 .02	.05 .29 .05 .29	1.36	3.28	1.34 1.95 2.25 2.08	.44 .53 .19 .22	.03	1	.03	4.77	3.00	.94 	3.10 1.70 1.37	.09	.04	1.31 	:	*
ILAUEA 1134 ILAUEA FIELO 17 1135 ILAUEA POINT 1133 DLO 1033 DLO 1033 DLOA 936	15.97 12.95 11.34	.79		05 .3! 1.4	.65	.19	.06 .06 .30	2.26 .18 2	.53	1.17	5.05 8.27 .34 1.74 2.07	.15 .26 .20 .30	.05 .07 .10	.08 .12 .06	.06 .11 .07	0 0 1.66 .29	1.90	2.33 3.04 .03 1.24 1.62	.05 .05 .03 .24	.01 .02		.40	.24 .69	.45 .28	# # *22	.67 .72	,03	•01 •50	•51 •65 •90	1.10	.1
OLOA MAUKA 994 OLOKO RES 1137 AUKUJULA 935 IHUE VARIETY STA IHUE 1020	19.64 8.76 13.38	.13 .		1.8 1.00 .8 .00	0 .83 7 .08 6 .26	.12 .04 .13	Т	.64		* 1	3.54 1.09 1.50 2.10	.23 .31 .04 .08	.08 .01 .02	•16 •01 •01	.11	.09	# 1.26	1.61 2.56 1.19 .30 2.05	.19 .12 .06 .09	.04 .01 T		.02	1.78	* * *61	*	4.54 1.37 2.95 .23 3.04	.01	.02	.93 .75 .31		.7
IMUE WB AIRPORT AKAMUENA POINT AKAMELI 965 ANA 1026 OMIMI UPR CROSS 1083	9,19	.08		08 .0			.01	5.07 2.19 1 1.41 .25 2	.50	.32 .21 .45 .30	.03	,04 ,11	.10	.03	,35 e	.06 .76	2.01 .51 .53 1.66	*21 1.09 *11 *97	.01 .30	-14		.48	1.70 .03 1.80 .70 4.91	.97 1.47 .27 .56 3.25	.65 .09	T		•22 •72 •58	.06	.57	.9 .7
OLOAA 1145 IU RIDGE 1035 WAILUA OITCH 1051 H WAINIMA 1115 RINCEVILLE RANCH 1117	14.88 13.14 31.52 18.97		48 1.	3.2 3.3 3.3 4.4	1 .99	1.01	*61 T	•02 1	.14		1.85 5.08 5.07	.05 .10 .48 .55	.10 .18 .14	.07 .33 .09	.17 .08 .14			2.22 3.30 3.10 1.10 1.00	.57 .28 .25 .10	*°1	•01	.13	* •45 •35	* • 85	1.82 1.50 .59	1.80 8.30 .02	.04	•03 T	1.03 1.26 .63	# I	3 · 4 1 · 5
UEHU RIDGE 1040 UHI 1013 ESERVOIR 6 1004 AHIAWA 930 AHIAWA MOUNTAIN 990	13.31	.61		a5 1+4- +7-	4 .38	.11	.01 .03 .01	1.10 3 2.11 1.62 .73	.65		.61 3.86 2.85 1.53	.21 .11 .03 .02	.16 .02 T	.01		:	2,98	.17 2.00 1.95 1.52	.32 .15 .18 .04	.10 .02	•02	.05	*	:	3,59	3.50 4.05 2.82	.01		1.24		25.5
AIAHI LOWER 1054 AIAHI UPPER 1052 AIAHA 943 AILUA KAI 1065 AIMEA 947	21.77 24.65 8.91 12.25 9.33	.79 1	62 1. 71 .	02 77 .5	3 .97	•77	.24	1.40 3 .20 6 .48 2 .87	2.17	1.38	.48 1.10 .30 5.92	.05 .03 .04 .15	.05 .03	*06 *05	.07	.18	.95 1.29 1.53	2 . 25	.06 .29 .15 .18	.02	.01		3.30 * .24	.63 2.93	.88 1.12 1.80	2.00		.01	.01 1.12	.58 .60	1.1
EST LAWAI 931 /	9,67	.20		1.2	7 .06	.03	.01	1.28	•	•	2.10	.04				*	•	1.08	.02	Ť			•	•	٠	3 • 05			•51	•	٠
IEA FIELO 625 761 ERETANIA PUMPING STA AMP 84 807 HURCH COLLEGE LAIE OCONUT ISLANO 840,1	12.16	.10 .02 .28	.16 .	09 .0 .0 13 .0 04 .0	8 8 5 .01	T 05	.01	.02 1 .15 6	. 52	1.10 3.20	2.87 .01 4.67 .72	.1° .0° .1° .6	T .03 .06	.01 .01 .13	.05	.05	.03		.10 .08 .11 T	.62 .56 .90 .55	•39 •05 •16	.07 .02 .07	•	* •30	• 13 • 73 • 72	• 60	•	•	.35 .67 .14	•20 •38	1.5
WA PLANTATION 741 ELEMANO INTAKE 881 OKULOA 725.2 ONOLULU OBSERV 702.2 ONOLULU WBAP 703	8.20	.03		37 * 01 T	* * T		1.50	*	.87 88 2.01	6.17	.11 4.61 .05	.15 .04 T	.01	.02 1.05 .01	:	* * 11 • 03	.26	3.00 2.85 4.17 3.21 3.77	.06 8 .08 .73	•53 • • •33	e F	.03	*	.03 * .15	.27	3.00		* *	.76 .50 .83	2.92	. (
ONOLULU SUBSTA 704 S P A EXP STA 707 AHANA 883 AHUKU 912 AILUA FIRE STA 791,3	9.78 14.45 40.03	.09	20	01 17 3.4 .7	1 *	.04 2 .05	•		2.21	* 2 3,30	.05 .01 8.00 .78	.04 .07 .33	T * •07	.01 .04	.02	.02 .02	1.84	8.04 5.40 1.58	.53 .07 .01	.25 .55 .54	•22 •08 •08	.01 .01	.16 .01	.16 .31	.05 .62 .23	Z+64			.36 .22 .28	.03	
	21.32 17.56 26.70 4 11.74 9.10	.14		18 .0 19 .0 •2 •9	8 .14 7 .05 2	.10		3.46 4		2.32	.18 7.20 2.24 3.22	.26 .45 .02	.06 .01 .05 .03	.06 .11 .01	.02 .12 .02	.46 .04 .35	.42	7.24 6.39 10.20 6.37 3.10	.46 .28 .32 .14	.06 .77 .41 .68	•21 •26	.02 .02 .18	.64 .01	.92	1.34	1.80 .96 .45	.09	. 29	.42 .31 .65	.06	
AWAI IKI INTAKE 880°2 EMOO CAMP 8 855 OOLAU OAM 833 UALUALEI 804 UALUALEI wTR TUNNEL	12.98 15.31 4.88	5 1.14	.96 .01	03	6 .04		.02	.08 2	2.93 1.57	.88	6.52 .12 .31	.57 .42 .20	.23 .18 .02	.12 .05	.02 .05	.28	.09 .05	* 3.32 3.13 1.17	.02 .26	.79 1.90 .66	# +06 T	.04	.09	.43	* •38 •31	* 1.12 T			* •13 •38	*	# # *(
UNALILO HOME 724.2 AKAHA KAI 796 AKAHA VALLEY 800.1 AKAPUU POINT 724 ANOA 712	16.45 6.56 6.98 17.28	.04		05 .0 50 .5	7	.18	.02	1	1.92 1.57 1.65 1.84 2.86	3,25		- 41	.04 .05 .08	.16 .17 .02	.05	.03	.11	12.32 2.50 2.60 9.63 9.43	.35	.10 1.01 .69 .05	•01 •02 •13	.12 .05	.06 .08	.03 .53		*19 *11	.03	٠	.76 .16 .16 .51	•02	
ANOA TUNNEL 2 716 OANALUA 770 UUANU RES 4 783 UUANU RESERVOIR 5 775 PAEULA 870	26.84 12.5 18.00 A 17.2	3 .17	.11 .	76 .1 12 .0 32 .0 1.2 40 .1	9 2 .14 3 .04	.01	.10	1.88	3.76	2.32	.20 .04 .08 4.20	.07	.06 .03	.16 .10 .13	.02	.94 .40 .42	.68 .02 .16	9.84 4.65 6.98 8.00	.36 .05 .72 .08	.32 .12 .60	.02 .67 .04 .03	.12 .07 .06 .08	.48 .02 .34	.34 .42 .46	.02 .56 .04	•91 #	* 1	*	•14 •73 •12 •48	.14	
PALOLO VALLEY 718 PAUQA FLATS 784 PORTLOCK ROAO 724,4 PRI WAHIAWA 820,2 PUNALUU 884		8 1.04 1 4 1.14 0 .03 .29	.06	.1	6 1	.30	. 24		3.37	1.04	.44 .26 .40 4.57	.23	.18 .07 .39	.24 .04 .02 .03	,04 ,02 T	.90 .42 .12	1.52	10.60 8.14 10.71 3.11 3.12	.48 .86 .25	.20 .12 .12 .84 1.07	•10 •02 •01 •02	.08 .16 .03	.08 .46 .12	.08	.10 .06 .30	1.10	т		.44 .20 .90 .61	• 28 • 32 •	
TANTALUS 2 780,5	A 11.1. 27.4. 19.8 A 16.3	2 .16	.84	20 .1 19 .0 95 .8 1.0	3 .0	3 *	.02	1.74	2.60	2.37	.02 1.21 .23 3.70 4.43	.07 .38 .12 .06	.07 T	.02 .15	.05 .02 T	.01	1.34	5.07 9.64 6.21 9.50	.08 .23 .24 .06 2.20	.68 .64 .62 .57	•16 •07 •07 •15	.03 .11 .04 .14		.26 1.34 .33		*30	1.90		.39 .14 .24 .35	.40 .10	
AIALAE KAHALA 715 AIALUA 847 AIANAE 798	A 21.3 17.2 A 7.8 5.8 A 19.7	8 .23 9 .04 9 .05	.07 .	1.0 .05 .0	5 1	1 .12 .01		Ť	2.70 .60 1.64 4.30		5.70 .50 .17	.53 .08 .22	.02 .15 7.20	.53 .18 .08 .14	.15 T	* T	.65 .65	4.10 10.08 1.94 2.61	*14 *15	.98 .13 .32 .25 3.75	•12	.05 .12	* T •11 •65	• 02	.06 1.22	.16	1.10		1.06 .11 .15	.01	
AIAWA 836 AIKANE 885 AIKIKI 717.2	A 15.5 A 23.8 14.0 A 18.6 A 23.1	1 * 0 * 6 .02 T	.03 1 .03 1			4.07 #	.87			* 1 2.01 * 6.30	2.90	.08	4.83 F T	# e 004 5 • 40 T	e e • 0 3	* 04		5.54 8.21	.21	4.98 .45 0.90 .92	.25 .04	* *12 *	* T	.07	* 12 * 05	3.08 	.58		* T * • 47	T n	T
AIMEA 892 AIPAHU 750 ILHELMINA RISE 721	A 8.8 A 8.8 17.9	3 .35	.26	24 .0	1	8 .08		.86	3,28	.20	3.80 3.37 .08	.50 .05	.04	•14 •03 •18	.03	.60	* .42	3.40 9.56	2.00	•19 •62 •10	Т	.01 .02	* 04	e e .04	.06	.94 .61 .04		.08	.18 .64	.02	

See reference notes following Station Ind

Continued		Т													,															DECEME	BER	1967
Station	Total	1	2	3	4	5	- 6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLAND OF MOLGKAI	-	1	4	3	9		0		0	3	10	11	14	10	1.4	10	10	47		10	20					20	20		20	40	00	
NALAUPAPA 563 KAUNAKAKAI 538 KAUNAKAKAI 538 KLALAPUU 534 MAPULEHU 542 MAUNALOA 511	5.76 8.03 8.37 10.43 9.53	.04		.07	•15	T	T .12		.40	1.53	1.17	2.00 2.79 3.15 3.85 .12	.80 .28 .41 .20	. 15	.02	.16		a 1,45	•31 1•84	1.93 2.65 1.94 1.28	.50 2.36	.40 .11 .03	.05	•	•		•15 •07	•	.14	.29 1.67 .57 .36	.30	.22
MAUNALUA 311 MOLOKAI AP 524 PUUOHOKU RANCH 542+1 WAIKULU 540  ISLAND OF LANAI	8.87 9.05 21.25	.30			3.08	a05				•58	1.73	.98 3.25 7.02	.72	.08			•		5.17	.74	1.73	•33		•	•	* 14	.02 * 5.98	•	•	.20	•	.23 .
KANEPUU 690 A KAUMALAPAU HARBOR 658 A LAHAI C17' 672 LAHAIMALE 684 A MAHANA 694 A	6.86 5.72 9.46 11.59 8.94					* * * * * * * * * * * * * * * * * * * *		.08	:	.40	4.26	3.78 1.12	.24	.03	4.22 .01 6.49		* . 11	* 14		1.10 1.22	.79	2.16	.02	* 16	. 20	.08	T a	****	•19 •33	.20 .36	.04	.29 . .08 . .69 . 8.94 .
MALAUFA 676 A RATAKEAKUA 685  O O O TSLAND OF MAUL	10.22					٠	•	٠	:	:	:	6.71	.69	:	7.22		*	*	s • 4 4	1.85	*	2.33	*	:	•	3.28	.01	:	*31	•	•	•36 • •47 •
AUMAH1-252 A HALEAKALA B E S *34 A HALEAKALA RANCH *32 A	11.69 11.20 8.39	.80	1.48	.58	* 1.16 .72						1.70	5.20 1.18 1.07	.75	• 35 • 48 • 44	* •59	.31				* •59 •72	2.05 .20 .27	.05 .12				* •12 •23	.03	2.30		* 1 .98 1.15	1.79	.20
HALEAKALA SUMMIT 338.4  HALIMAILE 423 HAMAKJAPOKO 485	10.55 12.38 8.25 9.98	.17 .15	.45	.05	.25 .05	.05	.03			.07	3.04 3.00	.19 1.50 1.91 2.14	.54 .43	2.40 2.25	.66 .45	.11	T .01	+12		.62 1.53 .64	.15	.08 .05	.06		.06	.39	.02 1.93 .36			.86 .31 1.50 .68	.01	.30 . .05 .
HANA 354 HANA AIRPORT HANAHULI 281 HOLUA CABIN 259.5 A	8.58 6.50 8.03	.16		.11		.28 .18 .40	.02	.02	.02	T T	2.26 1.65 1.70	1.46	1.1: .85 .11	.09	.03 .18 T	T	T .	.06	.09 T .05	.60 T	.06 T .02	.07 .02 .08	.01 .03 .15	* T •01		1.10	T 1.05	1.00	.33 T	.30	.64 .15 .01	.25 .28
HONDKOHAU 480 A HONDKOHUA 493 A HONDMANU GULCH 341 A KAHOMA INTAKE 374 A	16.80 10.92 8.80 19.04	.21	*	*	.75	.11	:	:	.03	*	•	6.19	15	.12		.08 6.53	*	я.	*	1.37	.67 *	•29	.03	:	2 2		• 06 #	:	*	1.44	*	.29 8.80
KAMULUI WB AP R KBILILI 436 KAILUA 446 KAUAULA INTAKE 375 A KEAMUA 410	5.09 11.43 11.04 5.14	1.12	7 2.67 8	.07 a .36 a	1.21 .79	.31	.15	. 34	.01		1.25	.49 .97 1.86	.31	.20	.18	.05	.02		2.97	.20	.09	.13 .17	.03	*	.23	* • • • • • • • • • • • • • • • • • • •	* 4.50 .03	:	* 1	.02	.01 .92 .01	T
KEANAE 346 A KEANAKAPU BEACH 260.2 KIMEI 311 KIPAHULU 256 KULA HEIGHTS 323.2	14.00 6.79 5.53 6.54 8.49	. 71	.22	.34	. 42	.34	.11	• 21	.18	1.13		.90	.03 .41 .06	.10	.14 .21	.05	.03	•	1.56	.18 1.49 .09	.96 .24	.15 .06		•01	•	* .63 .70 1.30	•	•	* 1	.94 .84	•	•
KULA SANATOPIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442 A	9.02 7.92 13.00 7.49 5.95						:			.03	2.20 2.75 2.95	.29 .60	.72	.04	.45 .31 .18	.05	T n	.03		1.51	.36 1.39 .92	.20	.10		.52 .10	1.10	.15		s 5.95	1.04	• 1	.02 .
MAHINAHINA 466 NAKALELE -FLO 60-497 A OLINOA 332 OLOWALU 296 OLOWALU 501CH 377 A	11.22 9.08 8.34 5.23	• 2 8		:	.86 .55 .39	.01	T .				2.85	2.20 4.92 2.80 .20	.13	.40	.23 n 1.03	.07 .10	:	:	.04		1.30 .14 .28	.01 .06	.01	.06	.10	.12 *	2.19	.01	a T	1.08 .84 .37	:	.99
PAAKEA 350  pala 406  PANILEIHULU 259.2  A  PAUNELA 490  A  POMAKEA BRIDGE 307.2	14.01 7.46 10.90 11.32	.51	1.40	.64	1.79 .29	.64 T	.47	.58	.16		2.04 1.18 #	.47 1.33 8	.71 .99 .25	.72 .20 .18	.37 .16 .05	.05	• 05			.40 .41 8.00 .22	.30 .98	•12 •46 • •27 •02	.10 T		.11	.47 g	.01 .22 .55	:	2.90	.60	.15	1.12 .
POLIPOLI SPRINGS 267.2 A PUUHOKAMOA 2 343 A PUU KJKUI MAKAI 472 A PUUNENE 396 SPRECKELSVILLE 400.2	13.95 6.80 11.80 5.40 6.06		.27	.02	* T .12		.08	:	:	:		1.00 1.35	. 38	5.73 .13 .10		.12	•	•	:		2.54	* • 1 2 • 3 1	:		# # *	* * *38 *23		5.60	.56	a 6.80	: 1	1.80
TWIN GATES 261.3 A UKULELE 333 A UKUMEHAME 301 DULUPALAKUA FANCH 250 WANIKULI 364 A	6.67 9.29 6.69 8.22 9.19		:	:	:	:			:	.35	2.08	. 33 2.48	2.70	.20	.24	. 16	.08	* * * * * * * * * * * * * * * * * * *	a a	:	3.22 .40 1.00	.04	.07	.24 .06	.37	•75 *	1.10	:	:	.50 1.09	:	9.29
walehu Camp 484 walhee Valley 482 walkamol 449 a walkamol Dam 336 a walkapu 390	5.45 6.29 13.20 19.02	2.04		.16	.14 .27 8.89	.10	.03	•	•	.05	1.40	2.53	.09 .14	.46 .60	.36 .46 .87	.05		.02	.01	.90	.14 .32	.08 .09	.12	:	.02	:	.76 .62	.01	* 1 T	.54 .58 .3.20	:	
WAILUKU 392 WAIOPAI RANCH 256 A	6.46	.11	.12	.03		*01			T .59	9	1.38	.36 4.10	1.03	.10	.28 .13	.08	T •	۰	T •10	.87	.57	. 02 T	.10	.03	.14 T	•73 a	.60 T 1.83	T .			T .	.02
15LAND OF HAWAII AHUA UM1 75 A	2.98																															
AHINI 18Z-I A EAST HONOKANE 1838 A HAINA 214 HAKALAU 142	9.25 12.36 7.23 20.08	•01	1.87 5.10	.37	2.75 .38 1.10	.05	*	•17 3.56	•	.02	.92	2.16	.04 .86	.25 .77 1.06	• 02 • 77 • 13	.08		* * *	.03	.21 .66 1.47	.02		.11		:		.23	# •02	* 1	.32 2.36	:	.06 .
HALEMAJMAU 52 HALEPJULA 117 AMELEROHAKU 111 HAHA11 VOLCNS NP HG 54 HAHI 168 A	13.92 3.62 3.42 19.22 5.72	.52	2.61	1.09	.26 1,10	.19 .10	.27 .25	3.27 .15	1.94	.01	1.85	1.15 2.00	* T .76	•	.01	:11	• • • • 0 2	* * * 35	.55 .03	.49 .15	.03	.03	* * * * * * * * * * * * * * * * * * *	* * T		2.29	.01	.02	* * .05	.51	:	3.92 . 3.62 . 3.42 . 1.59 .
MICO WA AIRPORT R HOLUALDA 70 A HOLUALDA BEACH 68 A HONAUNAU 27 HONOHIMA 137	17.10 4.45 2.42 3.24 22.20	.19	.02	.03	.53 .01 1.43	.04	.05	.02	.04	2.01	.35 1.81 .04	.03 .40	. 02	.04	.03	.04	.02	.13 .05	.07		.02	.15	.04	.06	.02	.01	.61	.02	.01 4.45	.02	.02	.60 .
HONOKENE 181.1 A HONOMU MAUKA 138 HONDAULA 71 A HUALALAI 72 A HUEHUE 924 A	8.42 29.64 3.00 3.40 3.17	1.151	0 • 1 4		3.08		.33	6.47	2.62	.03	.64	2.39	.30	.45 .10	.10 .02	.07		.06	• 03	.05	.03	.03	.24	:		:	.17		3.00 3.40	• 12		1.30
RPALA 1K1 12 A FARMALJA 29 A KATMALIU 738 KELAPANA 70 1 67.8 KEMAGA 740 2 5 A	10.56 3.30 4.79 11.98 4.00	1.76					T .38	1.20		Ť	1.40 1.88 1.20	.30	2.26	, 04 a	.25	.03	.07 .08	.25 .41	.05 T .47	1.49 T.86	.19 .22 .08 .02	.07 .03 .18	T	• 73	.20	1.46	.42 .66	.35	T .10	.37	T *	.70

Continued																														HAWA1 DECEM		1967
Station	Total													Day	of M	Ionth																
KAMUELA 192.2	6+5	1	2		3 .0	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		30	31
KAMUELA AIRPORT KAPAPALA RANCH 36 KAPOHO LANGING 935 A KAUMANA 88.1	13.2	6 T 0 0 2 7.2	0 .0 8 .4 5 *	5 .0	2 .0	2 .0: 8 *	*	1.10		• I 2	2.09	.10	.70	.54 .40	.49	.10 1.12	.09 .06	T #	• 35	1.77	.10 .05 .46	•37 T •10	.20 .26	:	Ţ *	.02 .03	.28 .05 1.15	.01 .55	† •05 1•10	.14 .17 .40	:	.02 . .05 .
KAWAINUI LDWER 193 A KEAAU 92 KEALAKEKUA 26.2 KEHENA 181.2 A KEHENA RESERVDIR 176.1 A	17.6 3.5 9.2	6 .8 7 .0 7 *	5 4.5	8 1.I	2 .4			.03		.12 .01	.65 1.73		.13		* • 03	*.04		* 24	.02 .05	.53 .05	.50	.03	.57	:		•20 •	.26	.01		.39 .38 .09 9.27	.12	1.12
KIDLAKAA A ? F 6 A KIPA 89,2 A KDHALA 179A A KDHALA MAULILI 176 A KDHALA MISSIDN 175,1	6.5	6 .0	l *		2.0	0 .2	.36	.67	.02	.21	.62	.42 2.16 2.29	.08 .55 .36	.06	# T	•	.02	• 01	•	.48 .18 .48	.01 T	*01 *19 *16 *33	.01 .11 .24	* * T	:	.07	• 22 • 34 • 31	• •01 T	•	.19	. )	1.75 .
KDIAWE LDWER 196 A KDNA AIRPDRT 68.3 KUKAIAU 222 KUKUIHAELE H1C 199 KUKUIHAELE MILL 206	9.8 3.0 11.3 5.0 4.1		3.0		7 .6 5 .1 1.6	0 .14	3	1.79		T .	1.96 .90 1.60	.03	.64 .62 .64		.78 .23 .15	3.90 .18 .10 .02	*	*	•	.06 .05	•03	*10	.42			.11	.10 .34 .10	*06	* T .0I	.24 .05 .05	.04	.26
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHDOL SITE 78 LANIHAU 68 C MANUKA 2	18.79 4.99 25.29 4.00 4.11	5 8	18.4		0 1.5 7 .1 T		2 1.90 •28		1.40 •10 4•90	.70 .95	2.37	.05	.15	.06	.01	.01 1.18	.01	.09	.07 .05	.15 *	•02 •41 •31	.02 .03	.82			.09 * .48	.03 1.38	.02 *	.03	.25 .33	.90	1.48 .
MAUNA KEA BEACH MAUNA LOA SLOPE DBS MIDDLE HDLUALDA 68.1 MIDDLE PEN 147.1 MOAULA 18	3.96 2.99 2.21 4.36 10.93	0	.0	3 *	.0	1 .0:	.16	.23	*	1.55	2.20 .29 1.80	.17 .07 e 3.23	.64	.04 e e	:		.04	:	.03 			:	.01		*	.01 .01	.30 .25		.02	.59 .08 .05	.39	.02 .
MDUNTAIN VIEW 91 NAALEHU 14 A NAPDDPOD 28 A NAULU FOREST 38.6 NIULII 179 A	21.88 9.58 2.75 17.9 8.1	. 2	2.6		.0	4 .0:	.20	2.39	2.98 1.08 * 1.59	.06	9	.53 1.89 2.14 .98 2.70	.06 .02 T 1.22	.06	•37 •	.06 .02	.09	.48	.02 .06 .16 1.36	.51 .75 .44	.03 .10 e	.03 .03 .02	.01 T		1.22	*19 1.26 *45	.05 * 1.26	.08	T	.49 .45 e	:	1.51 . .36 . 1.09 .
OOKALA 223 DPIMIHALE 2 24.1 DRCHID LAND EST 91.5 A PAAUHAU 217 PAAUILD 221	15.16 3.6 20.0 9.5 9.3	8.3	3.6 .0 .0 .0 .1 .9 .1	1 .0	2 * 1 * 3	3 .09	.02		9.77 .01	1.63	.88 .29 .92 .88	.98	2.08	2.69 T 1.42 1.82	.63 .35	.09 1.28 .19 .28	T n		.07	.12 .53	.09 #	.06 .04 .64	,01 e	*		+4Z	.35 .12 .16	.01 .01	.01 .29 .03	.04 .04 .01	•01	.67 . .03 .
PAHALA 21 PAHDA 65 PAKAD 37 PAPAIKOU 144A PAPAIKOU MAUKA 140,1	11.64 14.54 10.55 20.96 26.34	1.0	7.0	1 1.8	3 1.1	9 .50	97	2.94	3.77	.02		.46 .47 .39	.42		.65 n	.03	.03 e	.16 .58 .05	*05	1.65 .26 	.07	.01	.01	•	.01	2.20		.05	.02	.43 .32 .21	.01	.74 . .72 . 10.55 . .41 . 1.03 .
PEPEEKED MAKAI 144 PIIHDNUA 89 A PDHAKULDA 107 A PUAKD 95A PUU KIHE 120 A	21.39 32.46 2.23 3.89 3.10	3 *	9.2	5 .3	8 1.2	8 .60	1.07	2.40	.99 .09 .05	.02	.46 1.03 2.26	.08	.39	• 4 4 • • • 0 4	.10	.05	:	.06	.01	*49	•01		. 12			:	• 04 • 47	:	• 3	.15 32.40 .19 .33	•	1.93 . * . .34 . .02 . 3.19 .
PUU LAAU 102.I A PUU LEHUA 73 A PUU MALI 113 A PUUDKUMAU 167 PUU DO 82	3.98 2.35 2.70	.03		0 .6	* * * * * * * * * * * * * * * * * * *			.30 .70		.04	* * *	2.86	1.97	* * * •07	:	.09	:	*	.01	* * *33 *25	.03 .03	* * •32 •01	.99	*	:	:	* * 1.00	.01	:	* * •49 •25		3.98 . 2.35 . 2.70 . 1.45 .
PUU WAAWAA 94.1 SADDLE RDAD 1 84 A SOUTH PDINT CORRAL 3 A UMIKDA 118 UPDLU POINT USCG 159.2	4.55 47.75 5.86 6.13 4.76	24.0			* * 2 · 3 8 · 2		09	* •05 •05		e e .47	2.23 I.23 1.52	.03 * .05	.29	.20	0 1.24	1.50	# 2 • 2 4	:	.05	.03	T • • •05 •05	.08 .19	.82 .37		* 1•25	.02	•55 • •37	.04	•70 •07	.10 .38	• 70	.03
WATAKEA SCD 88.2	30.12	1.5	5.3	1 2.2	7 .8	5 .76	1.15	10.11	4.51	.15	.81	e 33	.06					•°3	Ť	.31										.38		1.58 .

### PRECIPITATION MEASURED IN STORAGE GAGES

Station	Obser — vation date	Amount since last obs.	Station	Obser — vation date	Amount since last obs.	Station	Obser — vation date	Amount since last obs.
ISLANO OF KAUAI			ISLANO OF MAUI			ISLANO OF MAUI		
HANALEI TUNNEL 1053	1967 JAN 31 FEB 28 MAR 31 APR 30 MAY 31 JUNE 30 JULY 31	14.80 20.00 24.80 26.00 21.40 4.40 11.00	HAELAAU 477	1967 JAN 31 FE8 26 MAR 31 MAY 1 MAY 28 JULY 2 JULY 30	14.90 7.51 9.40 8.16 4.48 14.05	KUKUI 380 (CONTINUEO)	JULY 2 JULY 30 SEPT 3 OCT 1 OCT 29 DEC 2 OEC 31	26.00 42.00 33.00 12.00 18.00 56.00 37.00
TOTAL	AUG 31 SEPT 30 OCT 31 NOV 30 OEC 31	14.20 6.60 9.00 24.00 32.00 208.20	TOTAL	SEPT 30 SEPT 30 OCT 29 DEC 2 DEC 31	8.40 1.60 3.20 22.00 14.00	MOKUPEA 475	1967 JAN 31 FE8 28 APRIL 1 MAY 1 MAY 28	8.69 10.05 23.44 5.72 4.24
N WAILUA RIVER 1055	1967 JAN 31 FE8 28 MAR 31 APR 30 MAY 31 JUNE 30 JULY 31	7.20 15.20 18.00 10.40 21.80 4.80 9.40	HONOLUA FLO 49 494	1967 JAN 31 FE8 28 APRIL 1 MAY 1 MAY 28 JULY 2 JULY 31	6.05 6.10 16.42 3.93 4.39 1.33	TOTAL	JULY 2 JULY 31 AUG 31 SEPT 30 OCT 29 NOV 30 JAN 2	2.65 - 8.25
TOTAL	AUG 31 SEPT 30 OCT 31 NOV 30 DEC 31	8.40 6.60 7.00 27.20 18.60	TOTAL	AUG 31 SEPT 29 OCT 29 NOV 30 JAN 2	2.80 1.79 1.44 4.88 9.03 .62.18	PUU PAKI 352	1967 MAR 31 JUNE 30 SEPT 30 OEC 29	
			KUKUI 380	1967 JAN 31 FE8 28 APRIL 1 MAY 1 MAY 28	66.00 42.00 102.00 51.00 44.00	WAILUA IXI 348	1967 MAR 31 JUNE 30 SEPT 30 DEC 29	65.00 90.00

									D.	ווה	ų I	11	_1.4T	- 1	nA															0	ECFM	BER	1967
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14		of Mo		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
		÷	-					-			1	1																					
ISLANO OF KAUAI																																	
KANALOHULUHULU 1075	MAX		6 7 5 5	62 55	65 55	66 56	68	68	63 55	58	5 <b>7</b> 50	61	55 49	61	62 50	65		61 57	63	62 56	66 45	65	62	62 57	64 57	62	<b>6</b> 0	62	62	61	61	65	62.7
KILAUEA POINT 1133	MAX M1N	78	78 69	78 69	78 67	78 71	80	77	76 68	76 65	76 61	76 66	76 65	76 66	80	81	80	75	82	84	86 65	80 65	86 70	83	83	79	76 62	80	86 60	76 59	75 68		79.0
LIHUE #8 AIRPORT	MAX M1N	78	78 70	77	79	79 70	79	79 69	75 69	72	73	74 58	74 56	74	76 62	75 58	79 67	76 67	79 63	79	77 63	76 60	79 65	74 69	76	74	74 58	74 58	75 59	73 56	74 57	76 i	76.0 63.8
MAKAHUENA POINT	MAX	79 71	78	79 71	79 70	80	80	80 73	82	78 68	76 65	76 61	82	80	72 65	81	82 72	82	82	84	83 65	83	8 0 6 9	8 3 7 1	77	79 65	79 64	78 62	79	80 58	79 64	78 63	79.7
MANA 1026	MAX	83	83	83	84	85	82	82	80	75 68	74 65	75 60	75	75	76 67	80	80	78 66	81	81	81	79 62	8 0 6 5	80 65	75 64	80 65	75 66	77 68	76 68	74 66	74 66	75 66	78.6
NIU RIOGE 1035	MAX M1N	82	81	80	80	80	81	80	80	77	75 60	72 61	72	71 61	72 63	75 64	77 65	76 62	78 64	77	70 63	78 60	75 60	76 60	77 61	76 60	70 57	77	77	75 56	74 57	76 58	76.4 61.0
WAIAH1 LOWER 1054	MAX M1N	74	72	74	75 64	78 65	75	76 64	77	80	79 63	76 54	79 52	77	79 59	80		79 59	76 66	76 60	80 59	79 54	78 66	78 66	75 68	76 58	76 53	76 52	74 52	73	73		76.6 60.8
e # e																																	
15LANO OF OAHU																																	
EWA PLANTATION 741	MAX	81	82	80	83	83	84	80 67	75 68	74	77	75 61	78 58	77 64	79 63	80	81	81	79 69	81 69	80 65	83	81	81	82	79 68	78 61	78 57	79 56	80 57	80 61	80	79.7 65.1
HONOLULU WBAP 703	MAX M1N	82	83 72	81	83	34 71	85 73	82	78 71	77	77	76 63	79	78 66	81	79	8 1 72	81	78 70	8 Z 70	78 68	82	80	82	81 71	78 67	80	77	78 59	77	80	81	80.0
HONOLULU SUBSTA 704	MAX M1N	76	76 70	75	77	79 71	80	78 73	77 70	73	74	75 64	76 63	75 67	78 67	77	79	79	76 66	80	77 67	77	79 69	80	80 71	76	75 67	75 65	76	76	77 68	78 72	77.0
KAHUKU 912	MAX M1N	79			79 69	79	80	81	82			8 I 6 3	78 63	77	75 68	76 62	- 7		86 62	91	63	66	64			67	68	56	57				
KANEOHE MAUKA 781	MAX	77	76 69	78 69	76 70	78 71	78 71	79 72	78 71	77 69	77 68	77	74	73	75 65	77	80	78 68	75 70	79 69	78 66	77	76 67	79 69	78 72	77	77	75	75 61	79 62	78 61	78 66	77.1 67.1
MAKAPUU POINT 724	MAX MIN	76 70	76 69	76 70	75 69	76 68	78	77	78 71	78 69	72	71 65	70	74 63	72 65	74	78 67	77	79	74 68	77 73	80	73	76	79	77	75 67	73	75	73	76 68	78 67	
OPAEULA 870	MAX	73	.,	73	72 65	75 66	77	77	77	0,	75 62	73 58	69	72 61	71	76 59	01		00				01		0,		01		04	02	08	0,	0.47
PR1 WAHIAWA 820.2	MAX M1N	76 64	78 64	79	79	79 62	82	82	82	73 64	72	74 60	70	73	74 63	77	78 59	76 66	79 59	75 65	76 61	84	79 62	76 67	74 68	74 61	81	75 55	75 53	77 52	79 59	78 58	77.0 61.6
WAIALUA 847	MAX	79	77	78	78	80	82	83	83	78 66	76 68	76 64	79	70	76 66	77 63	78 64	81	81	80	79	80	80	81	81	83	80	80 57	80 56	81 56	78 62	79	79.2
wAIK1KI 717.2	MAX M1N	83	84	8.2	81	83	85 72	86 72	8 2	79 69	75 66	79 59	80	79	82	82	81	81		80	81	82	82	81		8 2	80	80	8 1		80	83 72	81.4
			0,				, .	12	10	0 9		J.,	1	03	0,		0,	0 7	00			0,5	0.0	08			0.	,	50		02		00.2
ISLAND OF MOLOKAL																																	
MOLOKAI AP 524	MAX M1N	78 69	78 66	77	75 71	79 69	8 1 70	82 70	80 69	78 68	74 65	73	73 62	75 63			78 65			75 70	76 71	76 68		78 70		78 74	77 68	76 68		78 59	77 63	75 63	77.1 66.7
a a a		,				0,	, ,	70	0,	00	0.5	0.	0.	03	0,5	00	0,5	0,		,,			01				00	08	26	,,	0,5	0,5	00.7
ISLANO OF LANAI																																	
LANAI CITY 672	MAX MIN			74 63	73			73 64			73	74	72	70	72 58	72	73	71	72	72	74	72	72	73	72	73	74 65						73.5 62.1
a » »		0.0					02		00	02	0.6		29	76	,,	29	00	02	6,5	0.2	0,7	03	5-4	04	60	0.0	62	24	28	80	28	60	05.01
15LANO OF MAUI																																	
HALEAKALA RS 338	MAX M1N	59	59	56	55 45	62	62	66	63	63	56	55	51	53	45	54	57	62	65	61	59	56	56	60	63	60	61	58	57	60	56	60	58.4
HALEAKALA SUMMIT 338.4	MAX MIN	47	45	48	67	52	55	53	52	69	46	55	42	35	35	43	54	43	48	57	52	51	54	51	47	49	49	44	45	48	41	43	42.8
HANA AIRPORT	MAX	77		78	78	80	80	78	79	79	77	78	78	78	75	77	81	86	83	78	78	78	79	80	83	86	76	75	75	74	78	79	78.7
KAHULUI W8 AP	MAX M1N	77	78	74	81	83	83	84	82	73	74	75	79	75	76	78	8.2	86	79	80	77	77	78	78	78	7.8	75	73	59 77	78	77	79	78.2
KAILUA 446	MAX MIN	72	71	73	73	76	76	77	78	77	77	77	77	79	8.0	79	8.0	7.8	81	81	8.0	81	8.1	8.2	8.1	8.2	8.7	83	8.2	82	75	75	78.3
KULA SANATORIUM 267	MAX MIN	73	72		62 71	68	71	71	70	71	66	65	67	64	61	56	72	71	80	69	72	76	69	71	69	69	70	66	56	73	69	70	69.3
LAHAINA 361	MAX	84	86	85	8.3	8 4	84	84	8.3	84	74	75	8.0	8.1	78	79	78	80	8.4	7.7	70	80	8.0	8.0	70	8 1	7.8	79		78	78	81	55.3
	MIN	66			71																												66.4
*Alluku 392	MAX	8.2	81	80	76	81	82	8.3	82	/ 3	76	72	76	8.2	75	79	8 1	86	86	78	80	81	81	86	80	80	82	79	80	80	78	81	80.0 62.8

#### EVAPORATION AND WIND

74 79 78 62 59 62 73 78 64 63

 79 80 59 62 77 72 75 62 62 60

MAX 80 MIN 61

PAHALA 21

UPOLU POINT USCG 159.2

Station															1	Day	Of M	onth															Total or Avg.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	J. o. §
ISLANO OF KAUAI																																	
LIMUE WB AIRPORT	EVAP WINO MAX MIN		256 79	238 79		171 78	166 81	.22 145 79 63	52 79 68	97 75 67	.09 78 71 61	.12 69 75 58	.16 58 77 55	80 77	66 77	71	92 81	160	68 80	67 83	57 82	48	50 84	224	174 81	187	56 76	50 77	54 77	6.8	61 77	151 73	5.56 3527 78.7 61.7
15LANO OF OAHU																																	
HONOLULU OBSERV 702.2	EVAP WINO MAX MIN	.13 49 83 67	.26 50 87 68	66 83	56 80	40 82	.32 45 85 67	42 86	13 81	58	32 76	.06 25 79 63	25 77	37 81	28 78	.15 20 81 64	65	.17 112 85 72		81	.10 21 87 69	14 86	19 86	79 86	85	.15 69 86 67	.15 33 80 61	19 80	17 78	23 82	.12 19 84 65		4.37 1285 82.2 66.2
ISLANO OF HAWAII																																	
HILO WB AIRPORT	EVAP WIND MAX WIN		55	.00 8 80	73		8 74	13 77	21 75	120 78	-02 22 75 66	.08 30 80 65		235 75	.11 61 80	81	.31 223 81 60	20g 84	.09 75 75 65	.08 51 83 68	59 83		138	99 84	76 8 I	.23 148 81		51 72	69 78		.20 36 77 61	48 75	4.721 2249 78.4 63.6

### CLIMATOLOGICAL DATA

HAWAII DECEMBER 1967 DELAYED DATA

				Ten	nperot	ure									Preci	pitotion					
										No. of	Days					Sno	w, Sleet		N	lo. of	Days
Station	Average	Averoge	Averoge	Deporture From Normol	Highest	Dote	Lowest	Dote	-	32° or Below	Min.	-	Deporture From Normol	Greotest Doy	Date	Total	Mox. Depth on Ground	Dote	.10 or More	.50 or More	1.00 or More
JUNE 1967 MOLOKA1 AP 524	83.6	70.7	77.2		88	23	65	12	0	0	0	1.83		1.50	30	.0	0		3	1	1

### DAILY PRECIPITATION

Station	lal													Day	of M	ionth																
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
APRIL 1967																																
INDA 332 A	*	*	٠	1.88	.01	+02	.36	.01			.58	3.54	.21	.05	.19	*		1.60	•91					٠	+41	•	+17	•01	т			
JUNE 1967																																
	V41.91					24.40	.11															.11				•21		+11				

### DAILY TEMPERATURES

St. U															of M	onth									-						age
Station		1 2	3	4	5 6	7	8		10						16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Aver
9 9 8																															
JUNE 1967																															
MOLOKA1 AP 524	WIN	81 79 71 68	80 69	83 74	83 8 69 7	5 84 0 73	84 73	82 71	84 71	83 71	83 65	84 71	87 70	86 72	86 69	86 69	84 69	87 72	85 12	84 69	86 72	88	83 71	83 76	83 75	81 70	83 69	82 70	8 0 7 0		83.6 70.7

### STATION INDEX

	NO.	Z	<b>₩</b>	DE	DE	NO		E AN	D	1		NO.	z	↔ µ	E	DE	NO	OB:	SERVA	TION ND	DECEMBER 1967
STATION	INDEX N	NOISI DISTRICT	DRAINAGE	LATITUDE	LONGITUD	ELEVATION	TEMP.	EVAP.	SPECIAL ORE NOTES	OBSERVER	STATION	INDEX N	NOISINICY	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		PRECIP.	S	OBSERVER
BRYDESWOOD STA 985 EAST LAWAL 934 EKW 3 RESERVOIR 1094-1 ELEELE 927 HALAULA 1110	A 0145 A 0240 A 0466 0465 A 0470 A 0935 A 1038 1170	02 KOLOA 01 KAWAIHAU 02 KOLOA 02 KOLOA 02 KAWAIHAU 01 KAWAIHAU 02 LIHUE 01 KAWAIHAU 03 WAIHAU	2 2 2 1 2 2 1	22 09 21 56 21 55 22 06 21 54 22 07 21 58 22 05	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28 159 41	1610 116 720 440 350 163 253 490 1218 800	6 7	A A A	c c	MC BRYDE SUGAR CO. LIMUE PLANTATION CO MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIMUE PLANTATION MC BRYDE SUG CO LTO LIMUE PLIN CO LTO GROVE FARM CO LTO LIMUE PLIN CO LTO KERAMA SUGAR CO LTO	KAUMALAPAU HARBOR 658 . LANAI CITY 672 LANAIHALE 684 . MAHANA 694 . MALAUEA 676 . WALAKEAKUA 685 . ISLANO OF MAUI	5286 A 5301 A 5704 A 6012 9021	O1 LAHAINA O1 LAHAINA O1 LAHAINA O1 LAHAINA O1 LAHAINA O1 LAHAINA	1 1 1 1 1 1 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	157 00 157 00 156 55 156 55 156 55 156 55	1640 30 1620 3370 1430 1135 2040	7A	#1 8A 7A #1 MO W1 WM	C C C	DOLE COMPANY ODLE COMPANY ODLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY
KEALIA 1112 KEKAHA 944	A 2227 A 2974 3099 A 3104 A 3159 A 3982 4272 A 4561	01 HANALE1 03 WAIMEA 01 KAWAIHOU 01 KAWAIHAU 01 KAWAIHAU 03 WAIMEA 01 HANALE1	1 3 1 1 1 1 3 1 1	22 09 22 11 22 08 22 08 22 05 22 06 21 58 22 13	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25 159 24	1070 690 400 3600 800 175 9 317 415	8A 8 7 7 7	1 4 4 4 4 4 4	s c c	LINUE PLIN CO LTD MC BRYDE SUG CO LTO KILAUEA SUG PLIN CO KANALOHULUHULU R. S. LIHUE PLANTATION LIHUE PLIN CO LTD LHUE PLIN CO LTD KEKAHA SUGAR CO LTD KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	FIELD 46 474 HAELAAU 477 HALEAKALA B E S 434	0541 0790 0995 0999 1004 1008 1016 1075	OI MAKAMAO OI MAKAWAO	2 2 1	20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 55 20 52 20 55	156 20 156 38 156 36 156 19 156 19 156 15 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8A 8A	7A 6A 8A 8A 5A	*	ULUPALANUA RANCH MAUI PINKAPPLE COMPANY MAUI PINKAPPLE CUMPANY U OF MAMAIT EAP STA HALEANALA RANCH CO HALEANALA NAI PARK U OF MICH MT HKALA OBSY PILL SCOIL MAUI PINKAPPLE CO, HAWAIIAN COM + SUG CO HARRY HALFGAWA
KOLOA MAUKA 994 KOLOKO RES 1137 KUKUIULA 935 LIHUE VARIETY STA LIHUE 1020 LIHUE WB AIRPORT	4650 4735 4742 4750 4758 4950 5560 5560 8 5575 8 5580	01 HANALE1 03 WAIMEA 02 KOLOA KOLOA 01 KAWAIHAU 02 KOLOA 01 LAUE 02 LIHUE 02 LIHUE 02 LIHUE	3 2 2 2 2 2 2	22 02 22 04 21 55 21 58 22 11 21 54 22 01 21 59 21 59	159 24 159 41 159 46 159 28 159 23 159 30 159 23 159 22 159 22		6 7 7 M10 M1	A A A A A A A A A A A A A A A A A A A	K	U S CCAST GUARD  KERAHA SUGAR CU LTD  GROVE FARM CO LTD  STOVE FARM CO LTD  KILAUEA SUG PLTN CU  MC BRYOE SUG CO LTD  HAWAIIAN SUGAR PL ASSN  LIMBE PLIN CO LTD  U S WEATHER BUREAU	HANA AIRPORT HANAHULI 281 HULUJA CABIN 259,5 HONOKOPHOU 480 HUNOKOPHOU 493 HONOCHUJA 493 HONOCHUJA 494 HONOMANU GULCH 341 IAO NEEDLE 387,2 KAHAKULOA MAUKA 482,3	1125 1125 1148 1552 1882 1887 4 1914 1935 2208 2453	O1 HANA O1 HANA O2 MAFAWAO O4 LAHAINA LAHAINA LAHAINA O1 HAKAWAU O3 WAILUKU O3 MAUI	4 4 1 3 4	20 45 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 59 20 54	156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 33	61 325 6930 870 135 125 6280 1100 650	11A	TA MO MO 6A HO	, N.N.	HAMALIAN AIRLINE FOALI PANCH HALEARALA NATL PARK RCS MAUL PINKAPPLE CO MAUL PINKAPPLE CO MAUL PINKAPPLE CO MAUL PINKAPPLE CO MAUL PINKAPPLE CO MALEARALA RANCH CO STATE DIVISION OF PARK FIWARD CHANG PIOMEER MILL CO LID
MANA 1026 M + M 1001 MOH1H1 UPR CROSS 1083	A 5864 6082 6097 6433 A 6529 6565 6850 6888 6893	O1 WAIMEA O1 KAWAIHAU O2 WAIMEA O3 WAIMEA O2 LIHUE O1 LIHUE	3 3 2 3 4 2 3 2	21 55 22 02 21 55 22 07 22 11 22 04 22 02 22 04	159 27 159 38 159 46 159 28 159 36 159 30 159 44 159 28 159 26	52 140 11 300 3500 330, 5075 1250 1110, 650	9A 9 MI 7	A D A	C 5	U S COAST GUARD  OLOKELE SUGAR CO KERAMA SUGAR CU LID GROVE FARIR COMPANY U S GEO SURVEY LIMUE PLANTATION CO. U, S. GEU, SURVEY KERAMA SUGAR CU LID LIMUE PLIN CO LID LIMUE PLIN CO LID	KAHULUI WB AP KAILIII 436 KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEAHUA 410 KEANAE 346 KEAMAKAPU BEACH 260*2 KIHEI 31 KIPAHULU 258	2572 2630 2679 4 3433 3576 3910 4 4091 4193 4489	03 MAILUKU 01 MAKAWAO 01 MAKAWAO 04 LAHAINA 02 HANA	2 3 1 2 3	20 54 20 51 20 54 20 53 20 39 20 52 20 50 20 42	156 26 156 16 156 13 156 38 156 08 156 23 156 10 156 27 156 27		7 A	MID MO 7A WI 5A MO 6P 7A	C )	U 3 MEATHER BUREAU E MAUI IRR CO LTD E MAUI IRR CO LTD PIONLER MILL CU LTD PLONLER MILL CU LTD FAUPO RANCH HAWALIAN CUM + SUG CO E MAUI IRR CO LTD A - L + COPELL HAWALIAN COM + SUG CO K PANULU CATTLE COMPANY
PH WAINIHA 1115 PRINCEVILLE RANCH 1117 PUEHU RIOGE 1040 PUHI 1013 RESERVOIR 6 1004 STABLE CAMP 1055.1 WANIAWA 930 WANIAWA MOUNTAIN 990 WAIAWI LOWER 1054 WAIAWI LOWER 1054	8165 8205 A 8217 A 8573 8694 A 8941 A 8949 8958 8966	01 HANALEI 01 HANALEI 03 WAIMÉA 02 LIHUE 02 LIHUE 02 LIHUE 02 KOLOA 02 LIHUE 02 KOLOA 02 LIHUE 02 LIHUE	2 2 2 2 2 2 2 2 2	22 13 22 01 21 58 21 57 22 04 21 54 21 58 22 01 22 01	159 34 159 29 159 42 159 24 159 27 159 27 159 34 159 31 159 27 159 28	101 295 1660 329 420 740 215 2100 565 780	7 8 8	A A A A A A A A A A A A A A A A A A A		HC BRYDE SUG CO LTD PRINCEVILLE RANCH XEXAMA SUGAR CU LTD GROVE FARM CU LTD CHOVE FARM CU LTD LINUE PLANTATION CO. HC BRYDE SUG CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD	KUKU1 380 KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376. LAUNIUPOKO VILLAGE 372. CUPI UPPER 442	5003 5006 5177 8 5404 A 5408 A 5665 A 5715 6042	O4 LAMAINA O2 MAKAWAO O4 LAMAINA O4 LAMAINA O4 LAMAINA O4 LAMAINA O4 LAMAINA O3 WAILUTU O4 LAMAINA	2 2 4 4 1 1	20 54 20 47 20 42 20 53 20 51 20 51 20 57 20 57	156 35 156 19 156 27 156 41 156 37 156 19 156 16 156 40 156 32	5788 2520 3004 45 1280 220 1240 715 1040	7 A 7 A	6A 7A 7A VAR 7A MO 7A	- x	MAUI PINLAPPLE CO KENNETH AILLEY KULA SANATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO LOCAL TERRORIES MAUI PINLAPPLE J
MAIMEA 947 WEST LAWAI 931 ISLAND OF OAHU AIEA FIELD 625 761 BERETANIA PUMPING STA CAMP 84 807	A 9467 9629 A 9955 A 0111 0211 A 0300	02 HONOLULU 03 EWA	3 2	22 02 21 57 21 54 21 25 21 19	159 43 159 21 159 41 159 31 157 57 157 51 158 04 157 56	10 50 20 210 455 20 680	7 8 6	点点点 人名人		KEFAHA SUGAR CO LID LIMUE PLANTATION WAIMEA SUG MILL CO MC BRYDE SUG CO LID WAIAHOLE WIR CO LID BOARD OF WIR SUPPLY DEL MONTE CORPORATION	NAKALELE -FLD 60-497 OLINDA 332 OLOWALU 296 OLOWALU GULCH 377 PAAKEA 350 PAIA 406 PANILEIHULU 259,2	A 6645 A 7040 7059 A 7066 7194 7566 A 7674 A 7857 8060	04 LAMAINA 01 MAKAWAO 04 LAMAINA 04 LAMAINA 01 HANA 01 HANA 01 WAILUKU 02 HANA 01 MAKAWAO 03 WAILUKU	4 1 4 1 1 2 1 3	21 02 20 48 20 49 20 51 20 49 20 55 20 41 20 55 20 49	156 36 156 17 156 38 156 36 156 07 156 23 156 08 156 19 156 31	340 4127 800 1260 170 3570 485 167		VAN VAR 70 MC 64 W1 70 6A VAR		HAUT PINEAPPLE COMPANY MAUT OF ASTER DEPT PIUNLER MILL CO. PIONEER MILL CO. LTD HAWAITAN OM - 5U. CO KAUPO RANCH IN- HASEROT PINEAPPLE CO. WALUKU SUGAR CO. STATE DIV UF FORESTRY
HONOLULU OBSERV 702.2	0350 0438 0507 0964 A 1384 A 1540	01 KOOLAUPOH C 01 KOOLAUPOKO 02 HONOLULU 03 EWA 02 HONOLULU 03 EWA 03 EWA 03 EWA 02 HONOLULU 02 HONOLULU 02 HONOLULU	1 2 3 2 5 3	21 26 21 21 21 21 21 23 21 33 21 24 21 19	157 56 157 47 157 47 157 50 158 02 157 54 158 00 158 06	20 13 565 42 170 1274 2220	8A 7	A I R R A A A A A A A A A A A A A A A A	2000	RICHARD COBURN  OF H MARINE LAB  J. L. BANNING  EWA PLANTATION CO  BOARD OF WATER SUPPLY  WAIALUA AGR CO LID  H. V. VON HOLT  U. S. COAST + GEODETIC  U. S. WEATHER BUREAU  FSSA-WATHER BUREAU	PUDHORAMOA 2 343 PUD KUNUI MARAI 472 PUUHENE 396 PUUPARE 3952 SPRECKELSVILLE 4U0_2 TWIRE GATES 261-3 UKULELE 333 UKULELE 333 UKULELE 333 UKULELE 333 UKULELE 333 UKULELE 333	A 8336 A 8444 8543 8553 8688 A 8742 A 8744 A 8750 8760	O1 HANA O4 LAMAINA O3 HAILUKU O1 HANA O3 MAILUKU O3 HANAWAO O1 MAKAWAO O4 LAMAINA O2 MAKAWAO	1 4 3 1 3 3 1 4 2	20 50 20 55 20 53 20 46 20 54 20 46 20 48 20 48 20 48 20 39	156 13 156 38 156 27 156 03 156 25 156 23 156 15 156 35 156 24	6150 2980 2500 60 2160 85 1310 5230 75		Мо М 7А 8. VAR М 710 8А	c	E MAUL IRP CO LTP PIONEER MILL CO LTD HAWAIIAN CUM + NUG CO SEAST MAUL IRPIGATION CU HAWAIIAN CUM + SUG CU KAONOULU RANCH HALEAKATA RANCH CO PIONEER MILL CO LTD ULUPALAKUA KCH CO LTD ULUPALAKUA KCH CO LTD
M S P A EXP STA 707 KAALAKEI 724.6 KAHANA 883 KAHUKU 912 KAILUA FIRE STA 791.3 KALIH1 RES SITE 777 KAMEHAME 724.7 KANEOHE MAUKA 781	2146 2269 A 2462 2570 2683 2960 3056 3113 A 3123	02 HONOLULU 02 HONOLULU 03 KOULAULOA 01 KOULAULOA 01 KOOLAULOA 02 HONOLULU 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAUPOKO 01 KOOLAUPOKO	2 1 1 2 1	21 18 21 18 21 31 21 41	1 757 50 157 43 157 54 157 57 157 45 157 50 157 41 157 49 157 47	50 10 800 25 10 910 1380 225 365	8A 6	IA IA IA D		ESSA-WEATHER BURFAU H S P A EXP STATION MR's MILLIE ZADATA WAIAHOLL WIR CO LTO KAHNKU PLIN LO KAINKU PLIN KANEOHE RANCH CO GEORGE H, "WIFT	WAIEMU CAMP 484 WAINEE VALLEY 482 WAIKAMOI 449 WAIKAMOI DAM 336 WAIKAMOI DAM 336 WAILUA IKI 348 WAILUA UKU 392	9275 9315 A 9332 A 9335 9376 9460 9484	04 LAMAINA 03 mAILUKU 04 MAILUKU 01 HANA 01 MAFAWAO 03 HAILUKU 01 HANA 03 MAILUKU 04 HANA	3 4 1 3 1 3	20 55 20 57 20 52 20 49 20 52 20 48 20 54	156 40 156 31 156 32 156 12 156 14 156 31 156 09 156 30 156 12	580 320 300 1200 4320 470 2630 200 220	84	8A 6A WH VAR 6A: BA OC		PIONEER MILL CO LIU WALLUKU SUGAP CO WALLUKU SUGAR CO E MAUJ IRR .O LTD MAI L CUNTY WIT DEPI WALLUKU SUGAR CO EAST MAUJ IRRIGATION CO ST. ANIHONY BOYS CH HALEAKALA RANCH LU
KAPALAMA 773 KAWALHAPAI 841 KAWAI IKI INTAKE 880.2 KAWELA MAUKA 906.3 KEMOO CAMP 8 855 KOOLAU DAM 833 LUALUALEI 804	A 3268 A 3734 A 3741 3825 A 4318 4766 5647 A 5650 5655	02 HONOLULU 05 WATALUA	2 5 5 1 5 5 4	21 21 21 35 21 34 21 40 21 33 21 30 21 26	157 52 158 11 157 59 158 00 158 05 157 58 158 08	614 20 1180 1050 725 1160 113	1 9 1 8	A A A A A A A A A A A A A A A A A A A		KAMEMAMHA SHOOLS WAJALUA AGR CO LID WAJALUA AGR LO LID HAWAJI NATIONAL GUARU WAJALUA AGR CO LID C + F OFFICER HEGG US AMMUNITION DEP US NAVY MILNOR LUM LUNALIUG HOM.	AWIN1 182+1 EAST HONUKANE 183B HAINA 214 HAKALAU 142 HALEMAUMAU 52 HALEPIULA 117 HALEPOHAKU 111 HAWAII YULCNS NP HU 54	A 0190 A 0450 U840 U905 A 1033 A 1060 A 1065	01 HAMAKUA D2 HAMAKUA	1 1 2 3 1 2 2	20 10 20 07 20 06 19 54 19 24 19 56 19 46 19 26	155 47 155 43 155 43 155 28 155 08 155 17 155 24 155 28 155 16 155 50	5220 1870 4240 461 105 3648 5770 9220 3971 630	7.4	7 A MO MO MO		GREENWELL RANCH KOMALA DITCH CO LTO KOMALA DITCH CO LTO HONDRA JUGAR 20 PEPEEKEO SUGAP LO. HAWAII NAIACKEO STATE UV. UF PARS HAWAII NAI PARK KOHALA JUGAR CO
MAKAHA KAL 796 MAKAHA VALLEY 800-1 MAKAPU POINT 724 MANOA 712 MANOA TUNNEL 2 716 MAUNANILI 787-1 MOUNT KAALA 844 NUUANU RES 4 783 NUUANU RES 8 783 NUUANU RES 8 785	5766 5781 5800 6122 6130 6222 6395	04 WAIANAE 04 WAIANAE 02 HONOLULU 02 HONOLULU 01 KOOLAUPOKO 02 HUNOLULU 04 WAIANAE	2 2 1 2	21 19 21 20 21 21 21 21	157 49 157 42 158 13 158 12 157 39 157 49 157 48 157 54 158 09 157 59	25 16D 538 22D 650 410 20 4025 1048	8A 8		-	CAPITAL INVEST CO CAPITAL INVEST O U S COAST GUARD MRS JONN H. BEAUMONT BOARD OF WIR SUPPLY EAP. STA. Hs. P.A. JOHN A ROXBURGH FEDERAL AVIATION ADM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY	HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181*1 HONOMU MAUKA 138 HONJAULA 71 HILLA ALA 172	A 1557 A 1562 1665 1701 A 1864 1960 A 2047	02 5 HILO 04 N KONA 04 N KONA 04 S KONA 02 N HILO 01 N KOHALA 02 5 HILO 04 N KONA 04 N KONA	2 4 2 1 2 4 4	19 43 19 38 19 37 19 27 19 56 20 09 19 51 19 40 19 42	155 04 155 56 155 59 155 53 155 09 155 44 155 09 155 53 155 52 155 59	27 3220 14 1089 300 800 1100 6250 8190		MIU M MO 7A 7A 7A 7A 7A MO MO 6A	( ) ) 	U < WEATHER BUREAU STATE DIV OF FOR STRY VARIOUS RAN,H HANDS MAS MALAE W HUA PEPEERED SUGAR DIV PEPEERED SUGAR CT. STATE DIV OF FORE TRY STATE DIV OF FORE
OPACULA 870 PALOLO VALLEY 718 PAUDA FLATS 784 PEARL CITY TEPCE 754.1 PORTLOCK ROAD 724.4 PRI WAHIAWA 820.2 PUNALUU 884	7150 7664 7810 7933 8126 8172 8310 A 8316 8600	05 WAIALUA 02 HONOLULU 03 EWA 02 HONOLULU 03 EWA 05 WANIAWA 01 KOOLAULUA 02 HONOLULU 01 KOOLAULUA 02 HONOLULU 03 KOOLAULUA	5 2 3 2 5 1	21 34 21 20 21 21 21 25 21 17 21 28 21 35 21 19 21 22	158 02 157 46 157 48 157 58 157 43 158 01 157 54 157 54	1060 995 1640 240 6 700 20 360 488 2000	7A 1	D.	E E	WAIALUA AGR CO LTD BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAMES HUMEND GEORGE L. BRENNEP PINEAPPLE RESEARCH INST KAHUKU PLTN CO NAT MEH CEMETERY REV R CULLINAN BOARD JE WATER JUPPLY	KAAHALOA 29 KAHIAWAI 3.4 KAINALIU 73B KALAPANA NO 1 67.8 KAMAGA NU 2 5 KAMUELA 192.2 KAMUELA AIRPORT KAPAPALA RANCH 36	2512 2751 2894 A 3048 3077 3078 2300	03 KAU 04 N KONA 03 KAU 04 N KONA 02 D HILO 03 KAU 01 S KOHALA 05 S KOHALA 03 KAU 02 PUNA	3 4 2 3 1 5 3	19 30 19 08 19 32 19 20 19 02 20 01 20 00 19 17	155 34 155 55 155 46 155 56 155 02 155 40 155 40 155 40 155 27 154 52	1340 1330 3700 1500 10 1375 2670 2665 2140	7A 6A 8A	7A 8A 7A VAR HI 6A 6A VAR	X	HUTCHIN'ON SUGAR CO LAPIAIN 100K COFFEE U. RUSSEL P. MITH KONA LXPERIMENT JIA HAWAII VOLCANDES NAI PA- HAWAIIAN RANCH U PARFER PANCH HAWAIIAN AIRLINES HAWAIIAN RANCH U. INC. BUARO UF WAITE SUPPLY
TANIALUS 2 780.5 BUNIY OF HAWAII 713 WAMIAWA UAM 863 WAIAMUE 837 WAIALAE KAHALA 715 WAIANAE 798 WAIANAE 708 WAIANAE MAUKA '8U3 WAIAWA 836	8738 A 8815 8945 A 8964 9185 A 9195 9231 A 9238 A 9261	02 HONOLULU	2 5 1 2 5 5 4	21 18 21 30 21 28 21 17 21 35 21 27	158 03	1325 79 854 745 40 32 20 1575 800	7A	7 A 3 A 7 A 7 A 3 A	- L	R. E. WHITE DEPT OF GEOSCIENCE WAIALUA AGR CO LTO WAIAHOLE WIR CO LTO SPENCER TINKEP WAIALUA AGR CO LTO CAPITAL INVEST CO WAIAHOLE WIR CO LTO	KEAAU 92 KEAIWA CAMP 22+1 KEALAKEKUA 26+2 KEANAKOLU CAMP 124+2 KEHENA 181+2 KEHENA RESERVOIR 176+1 KIOLAKAA A + F 6	A 3770 3872 3925 3977 4098 A 4245 A 4250 A 4625	02 5 HILO 01 HAMARUA 02 PUNA 03 KAU 04 5 KONA 02 HAMARUA 01 N KOHALA 01 N KOHALA 03 KAU 02 S HILO	1 2 3 4 2 1 1	20 05 19 38 19 14 19 30 19 55 20 07 20 10 19 04	155 09 155 39 155 02 155 29 155 55 155 21 155 45 155 48 155 38 155 09	1123 1080 280 1700 1450 5280 3840 2520 1925	8A 8A	VAR WI BA BA HI JA MO WI	N N N N	SHIGEO MASUYA HONUKAA SUGAP TO PUNA SUGAR O HAWAIIAN AGE! TOMPANY HIS SAW GREENWELL INFO KUMALA DITCH CO LTO KUMALA DITCH CO LTO SIATE DIV F FORESTRY MAUNA KAA JUGAR O.
WAIKIKI 717.2 WAILUPE RESERVOIR 170 WAILUPE VLY SCH 723.6 WAIMANALO 794 WAIMEA 892	9397 A 9495 9500 A 9521 A 9593 A 9738 9980	02 HONOLULU	2 2 2 1 1 5 5 3 2	21 16 21 18 21 18 21 21 21 38 21 23 21 18	157 45 157 45 157 45	760 10 170 180 60 420 59 1100	M	BA BA		HUNDLULU ZOO BOARO OF WTR SUPPLY WAILUPE VALLEY SCHOUL ST DIY HTR + LAND DEV WAIALUA AGR CO LTD UAHU SUGAR CU BOAPD OF WTR SUPPLY KALAUPAPA SETTLEMENT	KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175-1 KOIAWE LOWER 196 KONA AIRPORT 68-3 KUKAIAU 222 KUKUIHAELE HILL 199 KUKJIHAELE HILL 206 KULANI CAMP 79	A 4670 A 4675 4680 A 4685 4764 4815 4928 4938 5011	OI N KOMALA OI N KOMALA OI N KOMALA OI N KOMALA OI HAMAKUA OI HAMAKUA OI HAMAKUA OI HAMAKUA OI S HILU OS N HILO	1 1 1 4 2 1 1 2	20 14 20 13 20 14 20 05 19 39 20 02 20 07 20 08 19 33	155 47 155 47 155 48 155 38 156 01 155 21 155 35 155 34 155 18 155 27	305 960 537 720 15 840 980 300 5170 8300	7A 8A	6A 6A 6A		KOHALA 'UGAR CO KUHALA SUGAR CO **. LYMAN BOND HONDIKAA SUGAR CL HAWAIIAN AIRLINE HAMARUA MILL CO HONDIKAA SUGAR CO HONDIKAA SUGAR CO SI DEPI UF SCIAL I S **CATHER OVIRLAU
KAMALO MAUKA 542.6 KAUNAKAKAI 536 KAUNAKAKAI MAUKA 536.5 KEONELELE PENS 551	3046 A 3541 3547 A 4394 A 4778 6138 6190 6534 8549	01 MOLOKAI 01 MOLOKAI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 04 21 06 21 06 21 12 21 09 21 04 21 08 21 09 21 09	156 52 157 01 157 01 157 12 157 02 156 48 157 13	60 12 70 560 878 20 1075 450 700	8.4	6A W K 7 A 8 A 9 A 8 A 6 A		W. J. CARSIEN MOLOXAI RANCH LID MOLOXAI GENERAL HOSPITA MOLOXAI RANCH. LID. DEL MONTE CORPORATION H S P A CLIBBY MCNEILL + LIBBY ALOHA AIRLINES PUUDHUKU RANCH MOLOKAI RANCH	KULANI SCHOOL SITE 78 LALAMILO FLD OFF 191.1 LANIHAU 68 C LAVA TREE PARF 66.1 MANUKA 2 HAUMA KEA BEACH MAUMA LOA SLOPE 085 HIDDLE HOLUALOA 68.1	A 5021 5260 5330 5460 A 6134 6180 6198 6268	02 S H160	2 3 1 5 4 1	19 35 20 01 19 40 19 29 19 07 20 01 19 32 19 37 20 06	155 20 155 41 155 58 154 54 155 50 155 50 155 35 155 68 155 50 155 30	5735 2615 1530 650 1760 103 11146 475 1380 600	8A 8A	#1 8A 8A M10 8A VAR M0	K K	ST DEPT OF SUCIAL SER STATE DEPT OF L + N RES SUNA EXPERIMENT STATISTUM STATE DIVISION OF PARTS STATE DIVISION OF PARTS U LA ATTEMPT OF THE PARTS U LA ATTEMPT OF THE PARTS UND ELECTRICAL TA KAMUA PARCH NAWAIIAN RANCH O

OBSERVATION TIME AND TABLES OBSERVER EVAP. STATE DIV OF F15H-GAME GREENVELL RANCH GAME NUKATAN RANCH CO NORALA DITCH CO LTO SENS STATEMENT OF STATEMENT MO MO 7A 6A 7A WM 74 U S COAST GUARD SHINICHI KANESHIPO KAHUA RANCH CLOSED 12/21/67 EDWARD CHANG

TRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OARU: 1-WINDWARD KOOLAU 2-RONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO INTRA-ISLAND DIVISIONS) LANAI: 1-(NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hammin may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, D.O. Rox 3550. Bonolulu, Hawmil, or to any Weather Bureau Office near you Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWMIL"

DIWENSIONAL UNITS. Unless otherwise indicated, discussional units used in this bulletin are Temperature in 'F, precipitation and evaporation in inches, and wind soverest in miles. In "Supplemental Data" table directions entered in figures are tens of degrees. Resultant wind is the vector sum of wind directions and speed divided by the number of observations

OBSERVATION TIME Data in the "Wonthly Extremes"; "Daily Precipitation" table; "Daily Temperature" table; and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station Index. The Station Index shows observation time in local standard time.

EVAPORATION is measured in the atandard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table refer to extreme of temperature of water in pan as recorded during 24-bours ending at time of observation

MORMALS for all stations are climatological standard normals based on the period 1931-1960

STATION NAMES Hamaii state key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Datiy Precipitation" table, "Evaporation and Wind" table, "Snowfall and Smok on Ground" table, and the Station index
- No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- . And also on an earlier date or dates
- ++ Blyhest observed one minute aindspeed This station is not equipped with an instrument to measure fastest mile data.
- \* Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station index"; indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for dates of measurement. There gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- B Adjusted to a full month J "Supplemental Data" table.
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record
- R Amounts from recording gage
- T Trace, an amount too smail to measure
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING:

- AR Observation made after rain
- C In Special Column of Station Index indicates Recording Rain Cage Station. Howrity precipitation values are processed for special purposes, and are published later in the "Bourly Precipitation Data" builetin. If daily amounts are published in "Clinatological Data" builetin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" builetin.
- MO Gage read once monthly, usually on the last day
- OC Gags readings at periods varying from a few meeks to several months
- Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the Jame issue of this sublication.
- SS Observation time is near sunce!
- VAR Observation time is variable
- Wi Gage rand weokly or irregularly only
- MM Gage read meekly and last day of month
- 8 Thermometers are generally exposed in a shelter located a fea feet above sod-covered ground; bowever, this reference indicates that the thermometers are exposed in a abelier located on the roof of a building.

Stations appearing in the Index, but for which data are not listed in the tables, were either missing or received too late to be included in this issue General seather conditions in the U. S. for each mosth are described in the publications MONTHLY MEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SUMMARY and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

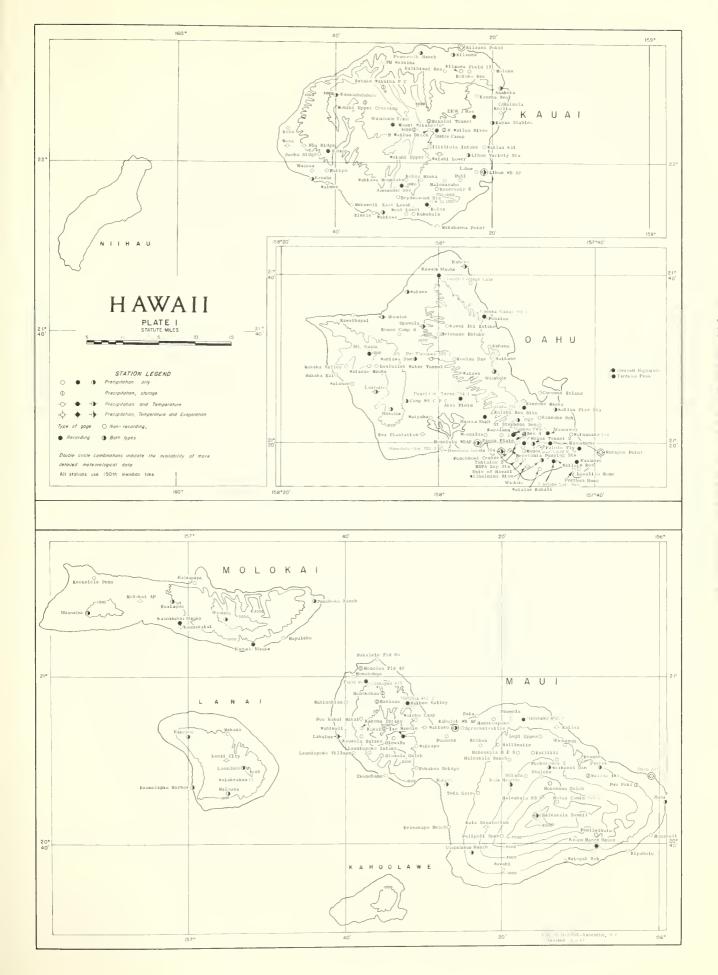
and Stoke Dala, all of ablice may be obtained from the Superintensoon of Documents, Government Printing Office, Rannington, D. C. 2002.

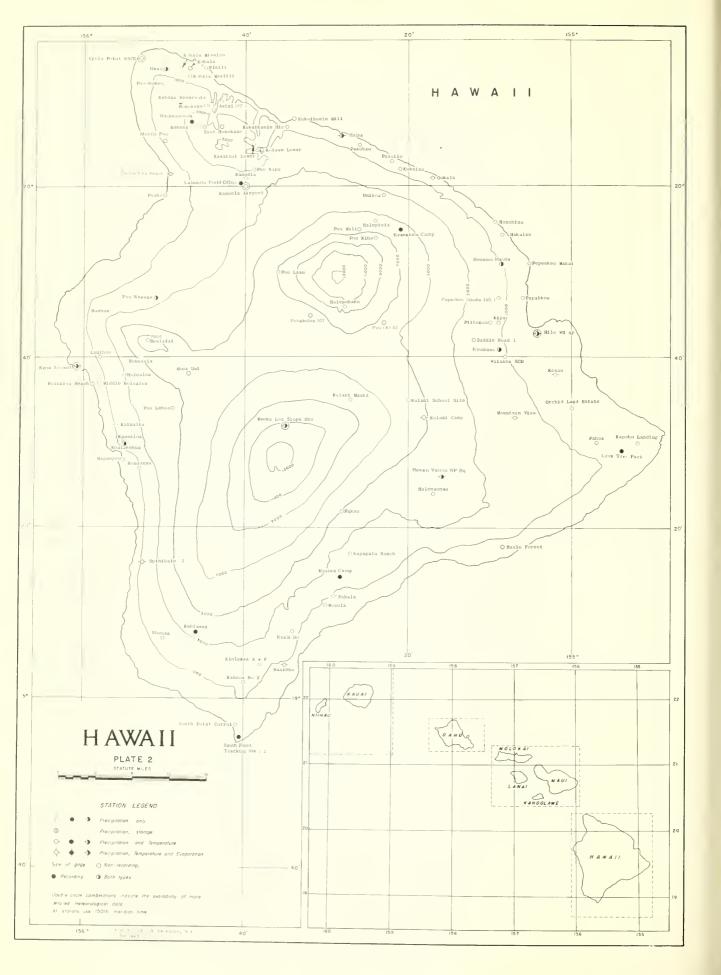
Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Eureau stations may be found in the latent annual issue of Local Climatological Data, price 105 cents. These publications may be obtained from the Superintendent of Documents the address shown above.

Subscription Price 20 cents per copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C. 20042.

DATE	TABLE	DIVISION	STATION	CORRECTION
MARCH THRU JULY 1967	CLIMATOLOGICAL DATA		ALL TEMPERATURE STATIONS	NUMBER OF DAYS, MINIMUM TEMPERATURE, 0 OR BELOW, SHOULD BE 0
APRIL 1967	DAILY PRECIPITATION	ISLAND OF MAU!	OLINDA 332	DELETE ALL DATA. SEE DELAYED DATA FOR

USCOMM-ESSA-ASHEVILLE-4/3/68-890





U.S. DEPARTMENT OF COMMERCE

HAWAII

ANNUAL SUMMARY 1967

Volume 63 No. 13



ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION 17 1968

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

	Jan	uary	Feb	ruary	Ma	rch	Ap	oral	Ma	y	Ju	ne	Jul	y	Aug	ust /	Septe.	mber2	and	DOI .	Nove	mber	Decen	nber 1	Ana	ual
Station	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Тепрегаture	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperatuse	Departure	Temperature	Departure	Temperature	Departure
* * * 1SLANO OF KAUAI	H	-	H	н	H	-	H	н	H	-	þ	- 11	H	<u> </u>	H	н	F	1	F	1	-	н	H	ч		
KANALOHULUHULU 1075 KILAUEA POINT 1133	55.2 70.5 69.5 72.3 70.5	- I.4 6	57.4 72.2 71.8 73.4 72.0		57.9 72.0 71.4 73.2 71.9		57.8 73.2 71.9 74.0 72.7		62.3 76.4 75.8 77.4 76.5	1.3	62.2 78.5 77.I 79.1 77.4	•5	65.8 78.8 79.0 79.9 78.9	1.4	66.7 80.0 78.8 79.7 79.2	•4	65+1 80+6 79+0 81+0M 78+7	•9 •8	63.1 78.7 77.5 80.0M 77.9	•6	59.3 74.8 74.9 76.8 74.9	.4	56.6 72.6 69.9 73.2 71.8	- 2.3	60.8 75.7 74.7 76.7M 75.2	•2
	67.5	!	69.3 67.8		68.7		70.3 67.7		72.2 71.4		72.9 72.5		74.1 73.4		73.9 74.4		76.5 75.6		76.7 74.0M		72.9 70.6		68.7 68.7M		72.0 70.9M	
1SLANO	66.5		68.2		68.2		68.7		72.5		73.5		75.2		75.8		75.8		74.2		70.9		67.9		71.5	
ISLANO OF OAHU			ļ																							
EWA PLANTATION 741 HONOLULU WBAP 703 HONOLULU SUBSTA 704 KAHUKU 912 KANEOHE MAUKA 781	71.0 72.5 72.1 70.3M 70.6	- ·1	72.2 73.9 73.5 72.0 <sup>M</sup>	I+5	72.4 73.8 72.9 70.7M 71.5	1.0 .7	73.2 74.7 73.9	• 5	76.9 78.2 76.6 75.8M 75.6	2.3	77.4 79.7 77.7 76.7M 76.9	.6 1.8 .9 .0 1.0	79.6 81.5 79.2 77.8	1.9 2.7 1.5	79.7 82.1 79.6 78.0M 77.7	1.4 2.7 1.2 3 .6	82.4		78.0 80.6 78.8M 78.5M 77.5	1 • 4 2 • 4 1 • 4 1 • 2 1 • 6	75.3 77.6 75.5M 76.7M 68.6	1.7 .1 1.9 - 5.6	72.4 74.0 72.5 K	A A	75.6 77.6 76.0M	1.0 1.7 .9
MAKAPUU POINT 724 OPAEULA 870 PRI WAHIAWA 820.2 WAIALUA 847 WAIKIK1 717.2	70.4 67.8 68.5M 68.9 71.9	1.0	69.7M		70.9 68.7 69.5 70.9 73.8		73.5 69.3 70.5 71.2 74.5		76.0 73.0 74.2M 75.0 78.7	3.2	77.7 73.6 74.8 75.9 79.3	2.0	77.6 74.8 76.9M 76.9 81.0M	2.6	77.6 74.5 77.3 77.3 81.1	1.5	77.7 75.3 77.4M 77.1 80.8	2.1	77.2 75.3 75.6M 76.5 79.9	2.9	74.6 71.9 73.0 73.7 77.1	I.7	71.7 K 69.3 71.9 73.8	• 7	74.7 73.1M 73.8 77.2M	.4
1SLANO	70 • 1		71.6		71.2		72.4		75.R		76.8		78.1		78.2		78.4		77.6		74.2		72.1		74.7	
* * * ISLAND OF MOLOKAI																										
MOLOKAT AP 524	70.3		71.3		71.5		73.1		75.8		77.2		77.7		78.0		78.0		77.3		75.0		71.9		74.8	
ISLANO	70.3		71.3		71.5		73.1		75.8		77.2		77.7		78.0		78.0		77.3		75.0		71.9		74.8	
* * * ISLANO OF LANAI																										
LANA1 CITY 672	66.3		7 67.78	2 • 2	67.7	1.7	70.4	3 • 4	71.2	2 • 7	71.9M	1.8	72.2	1.1	72.5	.6	72.7	1.2	72.4	1.7	70.4	1.8	67.8	1.3	70.311	1.7
ISLANO	66.3		67.7		67.7		70.4		71.2		71.9		72.2		72.5		72.7		72.4		70.4		67.8		70.3	
* * # 15LANO OF MAUI																										
HALEAKALA RS 338 HALEAKALA SUMMIT 338.4 HANA AIRPORT KAHULUI WE AP KAILUA 446	49.1 40.6 71.0 71.1 66.9	- 1.0 - I.0	51.4 42.2M 72.8 72.1 569.6	. 4	5I.6 43.3 72.2 72.2 69.1	1.0	50.4 44.5 73.3 72.6 69.9	8	54.1 50.8M 77.4M 76.7 73.9	1.4	56.0 53.0M 78.0 77.2 73.1	+0 1+2	57.9 52.5M 79.2 78.6 73.6	.5		- 1.2		7	55.9 49.1M 77.8 77.2 73.2M	1 .5	51.8 44.7 75.8 74.3 70.5	7	*0.6 42.2M 72.6 71.4 69.4	- 1.3 .5	53.5 47.1% 75.6% 74.9 71.5%	3 .A
KULA SANATORIUM 267 LAHAINA 36I WAILUKU 392	60.5 71.2 70.9M		9 61.3 72.5 72.6	1 • 3	62.1 72.5 71.9		62.0 74.1 72.9		64.9 76.6 76.0	1.4	65.6 77.3 M	. 7	67.I 79.3	1.1	66.0 79.7 M	- •7	66.I 80.0 78.5	4	56.3 79.6 77.4	•1	64.2 77.4 74.3	2	62.3 73.5 71.4	- 1.2	64.0 76.1	•1
1SLANO	65.8		67.5		67.4		67.9		71.4		71.2		72.7		72.3		73.0		72.5		69.8		67.3		69.9	
* * * ISLANO OF HAWAII																										
HAINA 214 HAWAII VOLCNS NP HO 54 HILO WB AIRPORT KAINALIU 73B KAMUELA 192-2	66.8 56.8 71.9 67.3 60.6	- I -	7 68.9 3 58.1 1 73.9 67.5 62.6		67.8 59.0 74.1 68.8 63.3	- I.7 1.1 3.5	59.5	. 4	73.7 61.8 77.1 70.7 66.1	2.3 1.2 4.1	75.3 62.7 77.5 71.1 67.1	2.3 .7 3.2	76.1 64.2 77.6 72.5 67.9	2.0 1.3 2.9	76.2 64.1 77.1 72.5 68.2	. 5	76.6 64.0 77.0 72.4 68.6	2 • 1 • 7 1 • 5		. 6	71.2 59.9 75.4 70.6 64.4	8 9 2.2		3 .1 1.8	72.3 61.0M 75.6 70.3 65.2	•4 •3 2•5
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KOHALA MISSION 175.I KONA AIRPORT 68.3	60.4 69.5 69.1 71.3	 	61.0 8 71.1 4 70.5 72.4	1 - 1	63.3 71.5 70.1 70.4 72.3	1.2	70.6		66.5 74.6 72.0M 74.1 77.0	2 • 1	67.4M 75.I 72.2 75.0 77.3	1.4	67.6 76.0 73.6 75.7 78.1	1.6	68.1 75.3 73.2 76.1 78.8		68.6 76.0 73.3 76.5 78.3	1.1	67.0 75.9 73.1 76.0 76.5	1.9	64.0 73.5 73.2 72.7 74.1	.7	60.9 71.7 71.3 71.0 73.0	.7	64.9M 73.5 - 73.2M 75.2	•9 1 •2
KULANI CAMP 79 MAUNA KEA BEACH MAUNA LOA SLOPE OBS MOUNTAIN VIEW 91 NAALEHU 14	51.2 74.1 39.2 64.8 70.4		53.4 74.5 43.4 66.0 70.9		55.8M 75.5 41.4 66.6 71.1		54.1 76.9 41.1 66.8 72.0		56.0 79.0 43.4 68.8 73.8		56.6 79.7 46.8 70.2 74.8		58.2M 8I.3 47.8 70.9 75.6		58.1M 81.3 47.2 70.4 75.5		57.5M 81.4 47.7 70.6 76.1		57.5M 80.5 45.4 70.4 76.0		55.18 80.8 42.1 67.4 73.9		64.5 75.7 40.4 66.2 7C.7		55.7M 78.4 43.8 68.3 73.4	
OOKALA 223 OPIHIHALE 2 24.1 PAHALA 21 UPOLU POINT USCG 159.2	69.8 65.5 68.7	- I. 	0 71.7 66.0 3 68.8 73.1		71.0 68.4 68.9 72.8	•6	72.2 68.7 69.9 73.9	1.0	74.6% 70.8 71.7 76.0%	1.8	75.7 70.8 72.2 77.1	1.4	76.0 73.2 73.9 78.5	1 • 2	76.4 72.5 73.0 78.2	- 1.0	77.2 71.8 73.4 78.9M	I.7 3	76.5 70.7 73.6 78.0	1.5	72.7 68.2 72.4 75.3h	3	71.8 67.6 69.8 74.3	3	73.8M 69.5 7I.4 75.7M	•9 •I
ISLANO	65.8		67.0		67.9		68.4		70.9		71.6		72.7		72.5		72.6		72.0		70.0		F9.0		70.0	

Island averages in the annual issue include delayed and corrected data and may differ slightly from values published in monthly issues.

A Special Weather Summary describing unusual weather in 1967 was included in the February and September issues of this publication.

Table 2			101	A	3 1 1				101												_					
	Jan	uary	Febr	uery	Mes	ch	Apr	il	Me	y	Jun	в	July		Augu	ıst	Septem	ber	Octo	ber	Nover	nber	Decen	pei	Ans	ual
Station	Precipitation	Departure	Precapitation	Departure	Precapitation	Departure	Precipitation	Departure	Precapitation	Departure	Precapitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precapitation	Departure	Precipitation	Departure	Precipitation	Departure
1SLANO OF KAUA1																										
ANAMOLA 1111 BRYOESWOOD STA 985 EAST LAWA1 934 FLEELE 927 MALAULA 1110		585	2.11	1.19	10.14	4.53 4.37 7.16 2.75 7.22	4.03 5.16 3.14 .81 4.02	1.59	6.34	5.40 1.00 2.54 2.11 7.07	1.48= .95= 1.06= .50= 1.63=	.17 2.26 2.69 .50 .28	2.72 3.43.44 4.46= .60= 2.29	.33 .67 .51 .66	2.31= 4.84= 5.24= 2.67 2.29=	. 30 . 93	1.76= 3.31= 3.39= 1.52 2.83	•37 •21 •75 •08 •54	3.97. 3.83. 1.84.	- 3.01 - 1.09 - 1.47 87 - 1.69	13.92 8.20 7.01	2.32	11.98	8.84 4.78 4.11 2.56 9.80	77.10 72.29 37.26	
HALENANAHO 1006 HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 KALIMIWAI RES 1131	A 8.39 2.49 13.04 A 27.86 A 9.17	5. 4 6	12.91 2.56 17.25 14.43 12.57		13.10 7.18 23.69 23.55 20.97		3.24 .71 19.17 19.75 9.84		10.08 2.60 32.79 32.88 13.39		3.29 .36 6.31 2.38 2.53		5.92 .36 15.81 8.13 10.44		7.31 2.28 14.12 7.31 10.62		5.58 1.03 8.85 8.32 4.45		4.61 1.83 12.64 9.89 5.53		12.05 3.72 25.59 41.81 14.49		12.48 10.62 30.59 37.85 17.39		98.96 35.70 219.85 234.16 131.39	
KANALOHULUHULU 1075 KANEMA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 KEKAMA 944	13.68 11.97 A 7.41 A 4.99 1.85	7 1	4.46 10.39 6.51 7.98 1.84-	3.29	11.43 17.95 13.01 12.04 5.43	6.74	7.95 10.34 3.49 2.91- .29-	.45 .78	6.51 16.71 9.46 9.91 2.11	7.72 1.33	1.47 3.61 1.18 1.29 .35	.34 .01	3.36 4.40 2.47 1.64- .23-	•27 •15	.89 7.11 3.08 1.86= 1.95	67	1.72 4.24 2.16 1.57 .65=	•53	3.54 4.65 2.89 2.03 1.64	- 1.77 20		.58 1.13		8,23 5,68	106.32 127.20 70.97 64.35 28.03	21.64
KILAUEA 1134 KILAUEA FIELO 17 1135 KILAUEA POINT 1133 KOLO 1033 KOLO 1036	6.50 7.90 5.94 5.59 7.76	2.19	8.98 11.20 10.48 1.14 9.58	2.86 3.02	19.79 10.74 6.12	6.85 9.91 7.38	5.60 8.04 3.92 .87 4.55	.09 .23	11.63 12.92 7.92 2.11 6.04	6.63 5.33	.97- 1.97- .56 .76 2.57-		3.89- 6.97 2.54 .39 4.72-	.55 .26	5.05 6.69- 2.91 .55 7.13	.61	3.31= 5.30 3.34 .69 3.91=	•30 •02	3.41. 4.70. 2.69 1.89 3.62.	- 2.37	9.69 12.34 9.77 2.79 10.81	3.02 4.06	10.83 15.97 12.95 11.34 11.51	3.63 6.46 3.89	113.79 73.76 34.24	
KOLOA MAUKA 994 KOLOKO RES 1137 KUKUTULA 935 LIMUE VARIETY STA LIMUE 1020	9.22 9.99 5.33 8.99 6.64	3= .03	12,55 8,94 4,97 7,83 7,68	3.22 .50	17.84 9.89 11.93	7.25 5.53 5.19	4.98- 6.35 2.82 2.96 2.38-	1.68 .41 1.48	11.88 14.31 1.87= 7.39 4.12	5.72 .04	3.72- 2.18 .68- 3.35 3.37	2.00 .73	7.55 6.76 1.77= 5.89 2.38=	.18 .29	8.97 5.89 3.44 4.91 3.20=	.17 .20	5.45= 4.80 1.76= 4.68 2.58=	.93 .50	5.00 2.13	- 1.55 - 1.24 - 1.70	11.17 7.53 10.08	7.75 3.52	14.55 19.64 8.76 13.38 11.61	4.36 3.15 5.43	87.10	10.48
LIHUE WB AIRPORT R MAKAHUENA POINT MAKAWELI 965 A MANA 1026 MOHIHI UPR CROSS 1083	5.59 3.66 2.63 3.59	- 1.26	6.59 4.43 1.80 1.37			4.35 3.56 4.85	1.60 1.30 1.62 .34	1.74 .49 .91	4.05 4.06 2.96 1.27	2.10 .37	2.09 .59 .19 .69	.63 .18 .05	1.84= 1.19 .32= .52= 1.64	•10 •29 •04	1.98- 1.95 2.36 .93- 1.84	1.13	1.56 1.07 .72 1.66 1.84	.16 .87	1.17	- 2.18 - 1.04 - 1.24	5,13	2.05	9.19	7.61 5.34 7.53	53.28 46.76 32.83 31.15	9.90
MOLOAA 1145 NIU RIOGE 1035 N WAILUA 017CH 1051 PH WAINIHA 1115 PRINCEVILLE RANCH 1117	5.60 3.72 16.54 13.79 6.49			.97 1.36 2.59	8.28 25.72 27.80	6.75 13.35 6.73	3.58= .52 25.15 11.59= 10.09	.68 3.31	10.05 3.59 42.23 15.07 11.43	5.91 5.09	1.69- .48- 8.54 2.49-		2.66 1.07 16.59 10.09 8.08	.01	2.51- 1.66 15.91 11.55 8.64	.90 1.32	1.54= 5.10 8.77 5.87- 4.47-	.64 .20	2.57- 1.07 13.76 6.12- 5.38-		5.11 2.22 26.44 34.94 17.65	.10 24.97 9.80	14.88 13.14 35.26 31.52 18.97	9.67 17.93 9.77	70.09 42.73 254.74 183.84 118.38	61.50
PUEMU RIOGE 1040 PUMI 1013 A RESERVOIR 6 1004 A WAMIAWA 930 A WANIAWA MOUNTAIN 990 A	3.62 6.67 8.39 3.63 9.50		3.10.	5.11 1.16 6.17	8.27 11.46 13.92 7.40 27.00	6.91 3.90 13.99	1.39 3.43 3.09 1.14 11.75	1,99 .78	3.05	4.67 1.55 4.67	2.79 4.55 .34_ 6.00_	.79 .98 5.28	2.09 3.09 5.68 .95+	.34 .74 1.52	1.91 4.77 6.65= 2.95 14.50=	.30 .43 1.17	5.82 4.05 5.32 2.02 11.75	.57	2.43 4.15 5.13 2.02 8.13	- 1.00	3.14 8.81 13.55 7.18 28.50	4.09	14.41 13.04 13.31 7.99 25.50	5.29 3.50 11.38		28.20
WAIAMI LOWER 1054 WAIAMI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 WAIMEA 947	8.81 12.00 1.90 6.80 2.39	2.02	15.52 16.79 1.50 5.51 2.30		19.70 22.39 5.42 13.46 5.61	3.09	8.29 15.23 .38 2.96 1.00	.74	17.15 23.75 2.59 4.33 2.16	1.75	5.21 3.89 .27- 2.05	.23	10.79 14.47 .12- 2.82 .11-	.41	10.32 12.53 .88= 2.28 2.65	•21 1•61	8.65 8.06 .73 2.28	.01	10.44 10.77 .75. 3.71 2.53	- 1.20 .62	17.59 21.75 2.04 5.66 3.17	.43	21.77 24.65 8.91 12.25 9.33	5.63	154.24 186.28 25.49 64.11 32.40	4.94
WEST LAWAI 931 A	4.61	89	5,29	•58	10.58	6.18	2,76	.24	۹,69	1.66	.91-	.91	1+70-	.73	3.57	• 30	1.92-	.55	2.80	<b>.</b> .89	9.45	5.15	9.67	4.37	56.95	14.51
15LANO	7.50		8.13		13.62		5,89		10.12.		2.09		4.70		5.09		3.81		4.24		11.15		17.96		94.30	
1SLANO OF OAHU																										
AIEA FIELD 625 761 A BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT ISLANO 840.1	2.33 1.97 2.59		2.82= 4.96 2.13	2,09	8.35 8.21 8.43	3.76	4.32 1.91 4.29 6.13	1.50	4.82 3.83 2.77 4.23 6.06	2,31	1.63- .82: 4.71 4.20 3.26	. 46	3.66 2.85 2.23 4.05 5.57	.82	6.04 3.68 2.45 5.56 7.20	2.86	1.93- .91 .97 3.59 5.33	. 25	5.20 2.27 2.63 6.89 4.38	1.29	5.45 3.31 4.59 5.10 4.58	1,27	8.85 12.18 9.95 15.72 15.77	3,43	55.40 46.90 47.74 74.27	
FWA PLANTATION 741 HELEMANO INTAKE 881 HOKULOA 725,2 HONOLULU OBSERV 702,2 HONOLULU WBAP 703	.95 8.67 2.16 1.07		1.68= 9.53= 2.29 1.73 2.53=	.01	4.93 8.68 9.40 4.83 6.78	2.28.22	1.66 7.86 1.28 1.25 1.29	.49	1.15 10.87 3.56 1.17 2.12	.12 6.09	3.93- 3.01 1.19 2.43	.19 .39	.89 5.35 2.10 .45 1.21	.41 .59	1.34 11.60 2.51 1.51 2.53	.70 5.96	.02- 3.82 1.43 .43 .42-	.64 .05	.70- 5.38- .97 .90 1.53-	- +82		1.05 8.68	7.67 13.01 13.85 8.20 9.93	4.82 4.09 6.94	22.63 104.70 45.82 24.00 34.34	26.35
MONOLULU SUBSTA 704 H S P A EXP STA 707 KAHANA 883 KAHUKU 912 KAILUA FIRE STA 791,3	2.35	- 1.92 - 2.64 -10.84 25	4.22 4.40 16.70 6.11 4.59		45.80	3.37 4.03 23.37 2.68		.20 .29 3.80 2.97	3.58 3.89 28.54 3.07 2.89	2.58 1.79 7.65	12.08	1.06 .46 4.87 2.96	.53= 2.27 31.45 5.15 2.27	.29 .41 8.43 3.26	3.10 4.59 41.00 4.40 5.32	1.89 2.31 16.31 1.74	1.00= 13.59= 2.51 3.82	.42 .84 4.43 .66	1.81- 2.62- 24.55 4.36 2.99	. 40			40.02	6.70 9.98 19.09 7.33	50.94 301.07	23,29
KALIMI RES SITE 777  KANFOME MAUKA 781  KANEOME RANCH 838  KAPALAMA 773  KANAIMAPAI 841  A	3.90 2.41 5.90	5.95 - 3.40 - 0.05 - 2.67	6.19	1.57	10.42	9.33 3.16 .02 4.70	6.38= 5.17= 8.79 7.41 1.10=	3.28	9.34	.91 6.10 2.14 1.80	4,09 6,18 2,38	2.01 1.15	8.33 5.50	2.38	7.47 8.87	8.70 6.50 4.94	5.36- 4.91 4.28 2.12- 60-	1.10	7.98 7.57 7.66 3.19	1.82	10.74 18.34 5.29 10.78 2.84	13.06	17.56 26.70 11.74	4.89	107.99 102.71 78.58	42.90
KAWA! 1KI INTAKE 880.2 A KEMOO CAMP 8 855 KOOLAU DAM 833 LAIE 903 LUALUALEI 804	3.06	- 2.82 - 2.19 - 1.32	4.00 3.33	3,59	15.00	5,55	5.80 3.50	.78 3.51 1.98	6.30 2.31 9.46	.60 3.35	7.00 1.05= 9.06	.07 .84	11.50 2.37 9.50=	1.23	11.00 3.32 14.47	1.16	3 • 25  • 44= 7 • 58	.89 1.34	4.00 3.66 7.44	. 42		.18 10.35	6.11 12.98 15.35	7.46 5.35	97.03 50.53 126.35	9.65
LUALUALEI WIR TUNNEL ALUNALIIO HDME 724.2 MAKAHA KAI 796 A MAKAHA VALLEY 800.1 MAKAPUU POINT 724	2,55	- 2.28	4.45 3.54 .96- 1.21 5.10	2.16	5.55 8.39 6.86 7.54 5.94	4.44	12.06 1.01 .99= 1.32 1.17=	.07	5.30 2.88 2.59 3.74 1.62	1.94	2.00 .33 .39	.06	4.37 1.44 1.01 .98 1.25	.75	3.50 3.19 .41= .57 2.83	.37	1.85 3.01 1.63 1.20 1.75	.96 1.04	.56	- 1.22	1.84 1.51 1.13 1.15	. 56	6.98	3.83	27.28	5.32
MANOA 712 MANOA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 783 NUUANU RESERVOIR 5 775 A	2.78	= 3.63 = 2.98	2.83-	1.81	28.30	3.45	5.10 10.12= 3.58 5.84= 5.06=	4.17	6.20 11.36 3.12	2.18 1.49 1.16 2.13	1.46- 3.40+ 2.81 3.42- 3.55-	1.53 6.04 1.64 3.73	5.40 17.38 1.85 8.28- 6.58	.50	9.48 25.86 4.26 14.16 11.24	5.06 12.82 2.50 3.57 3.71	2.96=	.23 .66 .81	4.87 12.52 2.78	.45 2.02 24 - 1.83	7.24	2.67 4.23 2.95 3.53	18.52 26.84 12.53 18.08	12.28 13.98 7.92 7.02	84.84	29.06 42.72 15.41 - 6.57
OPAEULA 870 PALOLO VALLEY 718 PAUDA FLATS 784 PORTLOCK ROAD 724-4 PH1 WAWLAWA 820.2 A	6.30	- 2.96 - 4.62 - 7.00	5.13- 13.52 17.34 3.92 3.65	2.52	9.86 24.88 29.56 7.35 9.83	12.03	5.68 9.86= 9.08= .77 7.31	2.65	3.91	.63	2.82 3.34m 5.44m 1.70 2.94	.22 5.45	5.05 15.56 18.48 1.15 3.41	1.75	6.40 23.38 26.12 4.38 5.03	11.64	2.10= 9.40 9.18= 2.95 1.27	.34	2.88.	- 1.97 - 43 05	8.82 11.90	3.81 .79 10.18	7.19	.22	63.61 168.12 194.02 50.70 59.66	5.74 33.70 30.74
PUNALUU 884 PUNCHBOHL CRATER 709 SI SIEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713	4.06 2.07 3.41 5.01 3.62		8.78 5.30 7.51 10.35 5.37	.71	11.61 6.89 13.19 15.85 9.97	5.20	5.94 2.47 6.70 7.29 5.01	1.95	11.04 3.79 8.01 8.49 4.12	1.35	7.71 1.40 6.91 3.85	.67	6.81 2.90 7.00 9.80 2.45	.20	9.00 3.83 9.87 13.38 5.80	3.03	3.99 1.02 6.00 5.01 1.45	.58	10.07 2.71 7.71 8.76 2.90	- •69	4.45 4.09 6.66 13.32 3.39		11.14 27.42 19.89		100.11 47.61 110.39 121.00 61.41	
WAHLAWA DAM 863 WAIAHOLE 837 WAIALAE KAHALA 715 WAIALUA 847 WAIALUA 798 A	2.11	- 6.95	4.94					1.17 .26 .47	4.63 15.74 2.70 1.07- 1.84	3.59 .03 1.23	3.70 8.02 .51	.02 .23 1.29	3.30 13.15 2.21 1.50 1.47	2.21 .76 1.09	5.25 22.83 6.54 2.99	1.61	1.30	.49	2.80 17.14 2.14 1.11	5.06 - 1.58	4.96 11.95 1.20 4.26	.12	10.37 21.38 17.29 7.89	7.09	55.15 170.74 49.77	26.19

## TOTAL PRECIPITATION AND DEPARTURES FROM NORMAL

HAWA11 1967

Table 2-Continued			10			CLIC	11 11	L A L	101	N A	IND	עע	IAI		JRL	O I	ROI	AT IA	OR	MIM	.1.			1	967	
	J	nuary	Febr	шагу	Ma	ıch	Apr	nl	М	ay	Jui	ne	Jul	у	Aug	ust	Septer	nber	Octo	ber	Nove	mber	Dece	mber	Ann	aual
Station	Precipitation	Depa	Precipitation	Departure	Precapitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precapitation	Departure	Precapitation	Departure	Precapitation	Departure	Precripitation	Departure	Precipitation	Departure	Precipitation	Departure
WAIAWAE MAUKA 803 WAIAWA 836 WAIKANE 885 WAIKIKI 717.2 WAILURE RESERVOIR 170	A 6.		7 12.39	+ 4.00 + 55 + 21	17.20	3.36	12.90	3.83 1.50 3.05	12.81	1.17 .97 13.27	3.93 5.51 9.13 .75 1.63	.81 5.33 1.15	7.33 15.43 14.23 .91 3.99	3,51 2,13 3,47		1.21 5.42 12.01	2.10. 7.22. 8.06. 1.58 3.23	1.17 2.75 2.48	2.10. 14.36 19.01 1.49 3.66	- 3.28 3.34 7.06	21.24	1.69 9.14 .82	15.51	10.67 .02 9.56	161.37	
wAIMANALO 794 wAIMEA 892 wAIRAHU 750 wILHELMINA FISE 721	A 1.	91 55- 1.8 16- 3.0 34- 1.2	0 1.85	2.39 - 1.84 2.16	6.06		3.10	•35 1•22 •12	2,05	60 .85 2.90	1.48	.88	5.32 3.46 1.89 3.78	.47 [.22 [.92		•51 1•27 6•51	3.20 2.59 .13. 2.20	.67 .95		- 1.28 - 1.25 48		2.52 .47 .44	23.10 8.83 8.84 17.90	5.30		3.81
1SLAND  * * * 1SLANO OF MOLOKA1	3.	08	5.50		10.58		4.98		5.54		3.51		5.17		7.78		3,13		4.80		6.82		13.43		74.32	1
KALAURARA 563 KAUNAKAKAI 536 KEONELELE PENS 551 KUALARUU 534 MARULEHU 542	A 3. A 3. A 7. 5.	97 70 16 3.0;					3.87 .36 2.99 3.13 2.87=	.07	2.12 1.67 2.90 4.82 3.10	3.24	1.40 1.88 2.12 1.26 3.23	.59 1.04	1.50 .00 3.13 .84= 2.73=	.04 .21	3.14 .00 1.56 2.52 8.09	1.30	.06 .08 1.08 .84 1.94	.06 .66	2.63 .73 .94 1.35 3.32	- 1.07 09	4.10 .46 1.46 2.53 3.77	57 .12	5.76 8.03 8.37 10.43 9.53	6.17 5.32	51.70 27.08 40.13 50.10 60.36	8
MAUNALOA 511 MOLOKA1 AR 524 PUUOHOKU RANCH 542,1 WAIKOLU 540	A 6. 5. A 20.	23	7 2.33 4.55 2.30 8.46	75	8.63 9.40 14.34 20.60	4.86	2.76 2.93 2.98 10.05	.45	5.38 5.74 4.07 10.31	3,91	1.12 1.83 2.74 2.32	.37	2.76 1.13 2.48 8.86	1.50	1.79 1.44 6.62 6.57	•59	3.75 .17 1.61 1.74	2.64	1.61 .49 3.23 3.18	76	1.19 4.62 15.62	2.12	7.70 8.87 9.05 21.25	4.20	44.80 43.97 59.51 129.41	
ISLANO	6.	3.7.	3.71		10.33		2.92		4.76		1.86		1.87		3.46		1.68	i	1.69		2.03		9.13		49.81	
ISLANO OF LANAI																										
KANEPUU 690 KAUMALARAU HARBOR 658 LANAI CITY 67? LANAIHALE 684 MAHANA 694	A 7. A 7. A 7. A 5.	17 94 3,33	2.38, 1.09 2.98, 3.98 1.54	75	7.18 10.09 6.32 7.38	5.76	1.27 .39 4.41 6.99 2.82	1.49	4.36 3.33 8.74 9.86 7.80	6.07	3.47 1.54 2.36 3.51 2.65	.94	7.46 1.83 7.45 7.72 9.11	5,73	1.61 1.26 2.72 4.14 2.14	• 94	1.77 1.17 4.05 6.00 1.03	1.78	2.54 1.18 1.96 4.52 1.67	99	2.92 1.14 4.31 4.30 2.77	1.45	6.86 5.72 9.46 11.59 8.94	5.74	49.48 30.00 66.47 76.19 53.47	31,48
MALAUEA 676 WAIAKEAKUA 685	A 5.		2.91		7.68 9.74		1.59		4.97 10.48		2,70		.70 3.14		1.53		2.60 3.50		2.06 6.36		1.12 1.14		10.22		39.85 67.53	
1 SLAND	7.	94	2,98		10.09		4.41		8.74		2.36		7,45		2.72		4.05		1.96		4.31		9.46		66.47	
ISLAND OF MAUI																										
AUWAH1-252 HALEAKALA B E S 434 HALEAKALA RANCH 432 HALEAKALA RS 338 HALEAKALA SUMMIT 338 <sub>*</sub> 4	A 12. A 9. 13. 5.	7 5.17 19 3.46		1.68		2.91 3.25		1.74	6.05 1.64 .25 3.66 3.30	2.76	2.22 4.64 2.91 2.66 2.67	1.86	7.30 4.43 3.88 2.28 2.78	.30 2.36	4.10 5.51 2.99 8.32 11.13	•83 •82	.25 .70= .41= 1.32 .73	1.60 .91	1.20 4.58 1.38- 2.61 1.50	.29 1.29	1.65 15.54 7.22 7.28 5.35	9,30 3,78	11.69 11.20 8.39 10.55 12.38	1.76	51.72 86.59 54.97 72.09 67.41	13.62
HALIIMAILE 423 HAMAKUAROKO 485 HANA 354 HANA AIRPORT HANAHULI 281	A 5.5	6 7	3.82 4.57 2.50 5.40 2.87	•13	9.08 9.84 9.89 17.19 12.66	4.30	3.29 2.53 6.68 10.31 3.79	2.36	1.39 1.00- 4.21 3.75, 7.60	2.28	2.98 2.69= 8.71 6.14 6.06	.08	3.96 5.28 4.32 6.88 6.43	1.82	2.47 5.43 7.13 9.40 6.99	1.73	3.40 1.09= 3.96 4.57 6.74	1.05	1.06 1.64 6.98 6.90 9.82	. 1.83	7.17 9.75 9.57 9.89 11.82	5.72	8.25 9.98 8.58 6.50 8.03	3.89	52.11 59.34 77.59 92.40 88.40	
HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOMANU GULCH 341 KAHOMA INTAKE 374	A 14. A 5. A 15. A 13.	0 1.44	5.00	.08	14.00 13.60 15.27 13.62 16.86	11,19	5.97 11.50 4.20 7.40 10.19	1.02	3.81 11.30 3.31 3.40 6.71-	1.05	3.46 3.30 1.17= 4.20 4.46=	.51	2.51 14.76 3.73 5.20 8.17-	1.35	7.42 14.30 3.29 8.80 5.15-	•71 2•52	.51 3.90 1.08 3.00 2.80	.60	1.91 7.90 2.08- 4.00 4.12-		12.06 20.00 4.68 16.20 17.66	1.36	5.28 16.80 10.92 8.80 19.04	6,27	68.93 149.92 59.05 95.42 119.63	22,76
KAMULUI WB AR KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAMUA 410		7 5.45 7- 1.57 1 8.05	14.34 8.47, 3.33		18.00 10.05	8.68 1.41 5.82 4.90 6.69	1.19- 10.75- 9.01- 4.17 1.34-		5.58-	2.35	2.50 5.79= 5.65= .58= 1.39		1.12 8.82- 15.38 4.63 1.72	.69 .49 5.23 2.38 1.18	1.33 9.37 20.07 1.98	8.76	.08= 1.65= 4.50= 1.89	.17 3.81 3.00 .16	6.96-	2.36	1.69 28.12 21.97 7.67 2.23	.17 17.38 11.92 4.16	5.09 15.44. 11.43. 11.04 5.14	2.39 1.91 .42 3.80	32.70 132.89 133.99 65.57 31.04	1.64 13.60 19.66
KEANAE 346 KEANAKARU BEACH 260.2 KIHEI 311 KIRAHULU 258 KULA HEIGHTS 323.2	A 16.6 2.1 3.6 7.6	0 3 .65 4- 2.30	.77		22.80 9.76 11.03 11.33 9.87	9.15 1.77	22.90 .30 .88 4.54 4.02	.05	9.90= .94 .70 7.09= 2.23	.52	9.90 2.93 2.13 6.00 2.62	3.87 2.09 1.76	25.90 .71 .36 6.90- 3.44	6.03 .26 2.63	30.48 2.17 .55 8.03 3.05	8 • 73 • 27 • 43	5.30- .18 T - 4.27- .48	.12	11.80- .37 .07- 9.43	.74	34.27 .31 .47- 13.61 1.98	.58	14.00- 6.79 5.53 6.54- 8.49	3.62	225.95- 27.33 25.84 89.78- 43.78	13.51
KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUROKO VILLAGE 372 LURI URPER 442	3.1 5.4 A 12.6 A 5.5 A 11.7	4 2.65 3 7.67 5 2.97	.66=	1.43	8.26 16.00 11.98		5.74 .89- 5.20 1.10 13.10-	3.05 .16 1.66 .19 4.63	2.85 2.65 6.60 1.22 5.30	.75 2.30 3.77 .88 9.56	3.92 .57 2.00 .50 6.30	2.23 .51 .16 .37 4.19	4.53 .65 3.25 .59 14.40	2.47 .54 .62 .50 .42	4.93 .36- 2.20- .35- 23.40	·12	3.55 .41 2.20 .77 30.30	1.58 .12 .67 .54 21.18	.25 = 2.35 = .42 =	• 15	2.93 .42 6.60 .51	.93 .79 2.68 .62 15.31	9.02 7.92 13.00 7.49 5.95	5.99 5.63 7.06 5.11	54.50 28.48 75.13 31.02 179.75	14.89 31.82 17.90
	A 8.1 A 4.6 A 5.6 5.3 A 11.6	5 7 2 2,82	4.37= 4.66 4.03 .09= 2.20=		12.86	5.89 10.34 13.26	3.37- 3.90 35.66 .58- 2.40-		2.10. 1.80 6.03 .72 5.80	. 50	1.03- .95 2.69 .80	.90 .70 8.00	5.38 3.63 4.98 .44 3.60=	2.67 .41 1.34	1.55- 5.08 5.96 .19- 1.60-	•06	.88= 1.71 .62 .00=	.81	1.23- 2.09 2.32 .67- 1.40-	.04	6.31 3.09 9.67 .29= 8.00		11.22 9.08 8.34 5.23 11.00	4.42 3.32 1.57	57.05 53.70 95.99 26.47 80.20	15.20
PAAKEA 350 PAIA 406 PANILETHULU 259.2 PAUWELA 490 POMAKEA BRIDGE 307.2	17.1 4.9 A 2.2 A 6.9	7 1.10 1 5 .88	20.67 2.25 1.33	3.15 1.31	25.91 9.18 19.85	4.11 5.13	24.84	4.34	10.26= 1.26= 14.42 1.20= 1.96	.85	11.50= 1.37 8.90 3.06= 1.93	.92 .18	20.58 2.37 6.00 6.35 .98	3.33 .48 1.22	24.06 2.66 8.00 8.64 .52	5.22 .74 3.15	7.49- .27- 2.03 1.67- .03	1.01	1.32-	. 84	4.69	1.78	14.01- 7.46 10.90 11.32 4.44	3.24	215.80 39.10 104.75 77.88 29.57	6.81
POLIPOLI SRRINGS 267.2 PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNENE 396 SPRECKELSVILLE 400.2	A 3.0 A 7.6 A 15.6 4.6	0-10.24 0 7.42 4 .86	10.00	1.02	14.74 22.80 11.60 10.35 9.62	7.89	1.13-	2.21 .47 .34 .78	7.07 9.80= 6.00= 1.98 1.14	15.65 1.11 1.33	1.95 13.00= 1.60= 2.15 1.53	3,89			10.35 30.00 3.00= 1.07 2.02	4 • 2 l • 7 4	.80-	3.18	2.45 13.00- 4.60- .77- .54-	•13	6.67 71.40 18.40 1.52 2.31	49.66	5.40	21.75 .25 2.77 2.91	79.72 256.02 101.60 31.86 33.66	10.73 15.03
TWIN GATES 261.3 UKULELE 333 UKUMEHAME 301 ULURALAKUA RANCH 250 WAMIKULI 364	A 4.8 A 12.4 A 4.8 2.4 A 6.8	3 4.83 6, 2.06 6	1.51	1.67	9.65 14.00 12.35 11.35 8.64		1.95 8.41 .56= 2.94 1.54=	2.49	1.70 4.61 .72 2.04 3.44	.76 .37 2.85	2.31 3.10 1.22 5.33 .28	.69	.30 4.55 .77 5.69	.19 .71	1.42 10.80 .21- 5.07	•19	1.70 2.10 .00 2.19 1.41	1.33	.75 3.81= .65= 1.01 .45=	• 24	1.96 13.00 .31- 2.71 2.08	7.40	6.67 9.29 6.69 8.22 9.19	.70 4.50 6.10	34.50 91.33 28.51 50.52 37.29	15.41
WAIEHU CAMP 484 WAIWEE VALLEY 482 WAIKAMOI 449 WAIKAMOI 0AM 336 WAIKAPU 390	5.3 5.1 A 12.7 A 12.6 7.2	0 .23	6.02 16.70 15.09	1.21	23.50	7.87E	4.24 5.52 14.20= 18.25 1.38=	4.46	4.85 4.98 6.20- 8.25 5.44	10.19	1.11 1.58 7.10- 8.26 1.66		2.37 4.16 20.50 15.73 1.73	1.39 2.37 5.21 1.16	3.34 4.87 28.20 20.23 1.09	2 . 8 %	.13- .68- 4.90- 4.04		1.77- 2.55- 9.50- 11.47 .89-	3.76	4.75 6.60 30.60 45.21 2.63	2.07	5.45 6.29 13.20- 19.02 5.19	4.26	49.26 62.01 187.30 197.86 41.83	19.56
WALLUKU 392 WALOPAL RANCH 256	6.0 A 2.1	6: 2,27 2= 1.85	2.38=	1.47	14.08	10.33	2.79 1.10	.09 .82	3.19	1.93 8.67	2.33	1.99 E 2.44	1.35	.64E	1.33	1.64	•15- •69-	.45 .26	.93- 1.01-	•93 •63	2.58	.24 .37	6.46	2.14E 4.32	43.63 41.64	17.25 18.96
1SLAND	7.6	5	5.35		13.29		6.39		3.91		3.90	[	6.29		7.98		2+18		4.03		9.96		8 . 92		79.85	

### TOTAL PRECIPITATION AND DEPARTURES FROM NORMAL

Tabl	a 2-	Conti	nue	d

Table 2—Continued	Janu	iary	Febru	ary	Marc	h	Āpi	ril	Ме	ıy	Juz	10	Jul	у	Augu	st	Saptem	aber	Octo	per	Nove	mber	Decen	aber	Ann	ual
Station	Precipitation	Departure	Precapitation	Departure	Precipitation	Departure	Precapitation	Departure	Precipitation	Departure	Precapitation	Departure	Precipitation	Departure	Precapitation	Departure	Precapitation	Departure	Precapitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure
15LAND OF HAWAII											J				,		1									
AHUA UM1 75 ARINI 182+1 FAST HONOKANE 183+2 HAINA 214 HAKALAU 142	2.60 16.22 19.45 8.69 11.81	.53 5.60 6.32 3.63 1.16	9.40-	2.89 3.53 2.57	13.09 11.20 10.41	7.73 1.85	5.70 12.89= 13.05= 6.98= 15.20	4.04	8.38 5.25	1.34 4.03 9.02 1.95	5.62-	7.08	4.21	3.53 3.75 1.49 .75 4.61	8.83- 6.55	3.17	2.72 3.06= 4.24= .51= 4.89=	3.27 4.36 1.78	7.62-	2.99	1.80 22.88 22.54 18.65 27.60	12.67 10.56 12.98	9.25- 12.36- 7.23-	1.70 4.64 5.70 .47 5.46	129.39	-34.01 10.47
HALEMAUMAU 52 HALEPIULA 117 HALEPOHAKU 111 AWAMAII VOLCN5 NP HO 54 HAWI 168 A	1.98 8.28 2.00 5.35 6.68	4.56 6.87 1.98	3.74 2.45= .32 8.16= 5.74		8.30 5.93 2.60 10.67 4.48	1.03	7.18 6.85 4.19 13.27 3.02	2.78 4.87 2.02	4.37 5.52 1.78 6.97 4.37	3.33 .90 .81	2.45 3.93 .14 4.58 1.67	2.90		.52 3.13 .50	.14	4.39 5.00 .83	.89 .20- .60 2.34- 1.30-		.52 3.71			13.04	3.42 19.22	9.08	22.24	21.19
HILO WB AIRPORT R HOLUALOA 70 A HOLUALOA BEACH 68 A HONAUNAU 27 HONOHINA 137	2.80=	3.78 1.71 1.00		1.23	8.00 2.59 8.22	1.76	21.26 6.66= 2.84 6.01 15.18=	9.34 .51 .53	4.94	.51 2.00 2.10 5.20	2.40= 6.82	.93	14.03 12.40 4.07 13.61 14.69	4.21 4.02 1.53 2.72	6.73= 3.93 7.41	8.10 1.12 1.07 6.19	6.78- 6.40- 3.37 4.45 5.60-	1.72 1.71 .66	10.08- 5.40- 1.84- 7.27 6.50-	. 64	2.90 2.67 4.94	7.88 - 1.24 .90 24.00	4.45 2.42 3.24	1.92 1.99 .86	31.10 75.07	1- 5.97 II 2.26
MONOKANE 181.1 A HONOMU MAUKA 138 HONUAULA 71 A HUALALAI 72 A HUEHUE 92A A	1.50-	1.57	1.54-	4.29	19.24-	1.88	13.50- 26.72 7.60 6.45 7.03	3.15 7.74 4.61 5.06 4.02	7.44= 15.77 4.00= 2.40 6.07	3.95 .52 .63 .54 1.40	3.00- 1.30-	1.10	2.60	2.23 13.64 1.13 1.09 2.94	25.02	•54	5.26= 8.74= 3.00= 1.75 2.13=	2.99 .34	3.20	. 4.71 . 7.71 .98 1.82	45.55	27.96 - 1.40	29.64 3.00 3.40	8.04	248.97 38.86 28.12	49.47
KAALA IKI 12 KAAMALOA 29 KAIMALIU 73B KALAPANA NO 1 67.8 KAMAOA NO 2 5 A	1.70 2.45 1.84	1.28	7.85 2.46- 3.71 	. 32	8.85 5.09 5.67 	.19	6.01 3.62 5.30 4.08	1.34	7.16 3.59 6.26 3.87	2,78	7.79 5.97 8.32 -	.72 .37	3.87 6.54- 10.68 6.79 2.89	2.13		1.34	3.03 6.30 6.92 2.19 2.02	•61 •69	6.12 5.58 3.50 4.27 1.96	24	17.40 2.99 4.93 8.37 7.04	59 .66		.47 1.78	90.82 55.82 72.81	1.55
KAMUELA 192.2 KAMUELA AIRPORT KAPAPALA RANCH 36 A KAPOHO LANDING 935 A KAUMANA 88.1	6.19 3.95 2.59 8.93 10.92	1.88	2.60= 1.99 .82= 6.24 11.49	1.62	4.12- 2.98 10.33 14.43 15.44	.	3.89 2.81 14.98 29.00 30.28	.00 9.88	2.80 2.56 8.97 6.77 14.10	.04 4.96	.64	1.02 3.24	2.88 1.10 5.19 11.28 26.73	.24 3.04	1.17- .49 9.52 9.83 27.56	1.91	.25- .15 2.19- 6.97 5.83	1.05	3.29 2.57 4.65 8.52 6.79	1.00	2.18	5.88	4.76	7.04	38.89 £ 26.18 88.40 130.46 222.92	26.19
KAMAINUI LOWER 193 A KEAAU 92 KEALAKEKUA 26.2 KEMENA 181.2 KEMENA RESERVOIR 176.1 A	25.06 8.76- 2.43 15.40 10.51	11.87	3.17-1 8.59- 3.06 6.90- 7.61	4.84	36.26 1 11.86 5.52 6.90 5.67		14.35- 24.43 3.99 9.35- 6.47	12.01	7.24- 11.55 5.36 6.40- 3.49	1.67	9.79- 7.66- 5.88 3.60- 2.76	.68 .20	17.92 19.15 7.41 9.65 6.32	2.27 9.01	9.15	6.87 6.87 4.13	7.84 5.84= 6.57 2.75= 1.42	- 1	7.50-	6.36 4.88	22.03	8.10	17.66	5.55 1.49	163.65	18.50
KIOLAKAA A • F 6 KIPA 89•2 KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175•1	1.73 11.52 7.49 8.85 7.48	2.72 1.92 2.02	16.27 10.57 5.28	2.30 6.09 1.68 1.75	6.30 18.08 7.35 8.36 7.08	.25 1.53 .42 .57	5.80 28.57 5.21= 6.29= 4.91=	3.20	4.80= 19.35 2.37= 3.25= 2.76=	1.87	5.77 11.23 2.76= 2.15= 2.75=	.59 .63 3.03	5.52 31.56 5.90 8.59 7.55	.04 1.35 1.77 2.35	7.20 27.44 4.46- 4.90- 4.54-	.63 2.04 1.13	4.78= 8.75 1.41= 2.39= 1.52=	1.56	7.40 1.69 2.32	2.13 2.84 3.76 2.80	14.45 36.60 6.42 9.04 7.43	1.87	7.19.	4.23 .11 .2.08	77.75 245.43 62.19 68.61 61.99	l .
KOIAWE LOWER 196 KONA AIRPORT 68.3 KUKAIAU 222 KUKUIMAELE HIC 199 KUKUIMAELE MILL 206 A	12.97 .71 10.66 9.55 8.66	4.06 3.01 3.42 4.07	1.24	5.68	1.57 13.71- 8.75-		8.69= 1.66 15.52 8.48= 6.84	4.61 2.10 .75 .45	4.52- 3.07 5.27- 2.60- 2.19-	3.34	6.90 1.80 2.89- 2.30- 1.89-	.24 .52 .74	9.25- 3.39 7.30 6.46 4.27	.68 .92 .92	4.42-	4.52 5.34 1.55		1	2.26-	6.35	16.00	17.36	3.04 11.32 5.04	1.96 1.90 4.18	22.61 115.58 69.85	
KULANI CAMP 79 KULANI MAUKA 76 KULANI 5CHOOL SITE 78 (ANIHAU 68 C MANUKA 2	11.16 3.47 10.27 4.29 3.01=	1.15	12.43 1.67 .19 6.04 2.01=	2.55	7.85 4.64 3.12 5.77 7.30		20.50 5.55 15.96 6.74 11.09	5.53	8.47 2.71 6.22 10.19 3.48=	3,24	2.50 3.29 4.48 8.61 6.11	.60	12.68 4.32 18.70 10.67 4.86-	.16	12.37 5.17 8.85 9.21 1.85=	4.25	3.42 .48 3.74 3.59 3.72	2.13	1.32 3.22 3.55 9.42 4.47	•02	18.40 10.92 25.90 4.06 7.31		18.78 4.99 25.25 4.02 4.18	.46	129.88 50.43 126.23 82.61 59.39	u L
MAUNA XEA BEACH MAUNA LOA 5LOPE OBS MIDOLE HOLUALOA 68.1 A MIOOLE PEN 147.1 A MOAULA 18	1.45 .46 1.72 1.72	6.78	1.36 .34 3.06 1.21 3.50	2.84	1.58 4.13 2.61 1.81 6.10	.28	5.40 2.06 2.72 2.68 4.00	.63	3.26 2.75 2.99 2.09	3,15	2.78 1.84 4.66 1.58 2.75	1,38	.15 3.66 6.11 .69 1.61	.14	.20 2.31 4.55 1.50 7.70	4.55	1.33 2.00 2.15	2.43	1.97 1.67 2.17 1.37 2.67	1.94	1.83 4.57 3.52 2.57	8.48	3.96 2.99 2.21 4.36 10.92	6.58	24.68 28.11 38.32 E 23.73 61.27	
MOUNTAIN VIEW 91 NAALEHU 14 A NAPOOPOO 28 A NAULU FOREST 38.6 NIULII 179 A	11.77= 1.14= 2.17 4.45 7.58		7.63 1.39 8.24	3.34 1.78	5.08- 2.19 9.51	2.36	31.97 2.46- 3.19 9.10 4.45-	. 24	12.84~ 3.77 3.55 12.86 3.06=	1.59	9.60- 3.40 2.94 4.05 2.13-	1.61	23.13 2.52 6.43 8.54 6.15	8.19 .94	24.38 7.96 4.29 19.14 4.66	7.47	7.39- 1.40- 6.77 1.89	1.96	2.79- 6.19 3.75	3.98 1.09	16.78 2.06 12.39	11.57	9.58 2.75 17.91	3.53 5.01	215.00 64.51 43.92 111.83 60.59	15.97
OOKALA 223 OPIHIHALE 2 24.1 ORCHIO LANO EST 91.5 A PAAUHAU 217 PAAULO 221	8.86 2.73 14.34 8.29 11.84	.69 2.98 3.95	2.33 7.76 4.20	2.95	6.47	.77	14.46 3.59 22.03 6.89- 13.49	.66 1.15		3.70 2.62 4.48	4.51- 6.54 8.06 1.52- 2.15-	.09		3.00	14.06 7.55 17.67	4.54 3.28 4.87	2.12- 11.16 7.96 .50-	3.04 1.85 2.55	4.99 7.93 2.02	3.20	1.27 12.68 17.79		3.61 20.03 9.54	1.24	124.73 64.09 157.48 75.03	8.74
PAHALA 21 PAMOA 65 PAKAO 37 PAPAIKOU 144.1 PAPAIKOU MAUKA 140.1	9.84- 5.00- 9.39-	6.75 3.21 1.57 2.63	8.90.	3.32 2.16 4.55	7.88 15.89 16.20 9.33- 16.52-	9.38	20,30	7.98	12.22	2.32	8.40	.91	2.07 12.43 12.10 18.85 34.25	8.38	17.74 11.10 22.52	6.41 6.24 5.31 10.46 3.58	3.33 5.89- 6.00 6.17- 8.41-	2.39	7.90 6.55	2.75 2.22 5.14	19.06	5.57 7.67 17.13	14.54. 10.55 20.96	7.20	72.61 166.60 127.37 172.65 243.73	66.95
PEPEEKEO MAKAI 144		1.76	6.31-	6.23	11.53= 24.40= 2.77 2.33 3.55	2.81	15,63	4.49	10.47	1.55				- 1	19.68 28.80 .82 .13							14.49	21,39	7,13		26.76 58.51
PUU KIHE 120 A PUU LAAU 102.1 A PUU LEHUA 73 A PUU MALI 113 A PUUOKUMAU 167 A	8.26 1.61 1.80 4.64 9.24	4.69 .54 3.63	2.65= 1.12 2.90 1.09	2.40 .59 3.90	2.54 2.80 4.70	.36	8.35 5.85 6.45 5.49 5.73	4.85 3.78 1.03	4.44 4.35 3.60 4.46 4.33	2.50 .38	2.46 .99 2.85 1.77	1.41 .30	3.44	.99 1.27 2.45	1.89 2.70- 3.53	5.33 .66	.23- 1.74 2.26- .86 1.17-	.07	1.72- 1.64 4.50 1.08	2.27	1.54 2.10 5.57	. 39	3.98 2.35 2.70	. 2.38 .73 2.96	30.69 38.21 38.48	8.08
PUU 00 82 PUU WAAWAA 94.1 A SAOOLF ROAO 1 84 A SOUTH POINT CORRAL 3 A UMIKOA 118	4.19 1.94 14.66 1.11 13.43	6.27	5.46 2.44= 15.76 3.69	•13 5•44	8.21 7.29 21.92 4.98		11.91 6.75 26.59 2.27 9.05	4.45	6.59 3.95 13.26	1.22	4.37 6.05 20.77 1.26	3.93	10.91 5.64 30.52 1.23	3.54	14.48 2.71 26.01 2.64	•58 5•10	3.75	1.23	3.56 5.13 8.25	2.25	18.04 1.19 23.93 5.89	90	8.62 4.52 47.75 5.86	2.82	100.09 51.17 257.71 31.19	21.78
UPOLU POINT USCG 159.2 JAIAKEA SCO 88.2	3.89 12.34		4.03 13.07		3.68		2.09		.92 13.41		1.65		3.42		2.53		1.40		1.15		4.23 31.58		4.76 30.12		33.75 219.56	
I 5L ANO	5,69		5.17		6.78		9.54		5.36		4.17		7.35		8.12		2.90		3.83		11.95		9.18		80.04	

Island averages in the annual issus include delayed and corrected data and may differ slightly from values published in monthly issues.

Table 3									
Station	Highest	Date	Lowest	Date	Station	Highest	Date	Lowest	Date
* * *					* * *				
ISLAND OF KAUAI					ISLAND OF MAUI		:		
KANALOHULUHULU 1075 KILAUEA POINT 1133 LIHUE WB AIRPORT MAKAHUENA POINT MANA 1026	80 90 88 91 94	10-14 5-17 10-30+	39 57 56 58 56	2=18 12=29+ 12=29+	HALEAKALA RS 338 HALEAKALA SUMMIT 338.4 HANA AIRPORT KAHULUI WB AP KAILUA 446	74 69 88 91 84	12- 9+	32 20 56 55 52	1- 7 1-11 1- 7 12-28 1- 6
NIU RIDGE 1035 WAIAHI LOWER 1054	92 85		53 51	1-10+ 4-10	KULA SANATORIUM 267 LAHAINA 361 WAILUKU 392	80 93	12=18 9=29 =	46 53 56	12=27 2=21 12=29+
* * * ISLAND OF OAHU					* * * ISLAND OF HAWAII				
EWA PLANTATION 741 HONOLULU WBAP 703 HONOLULU SUBSTA 704 KAHUKU 912 KANEOHE MAUKA 781	93 92 87 87	10= 3+ 9=25 5=18	56 59 60 56 59	1=12 12=27+	HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT KAINALIU 73B	89 85 91 85 85	7=28 5=18 10=13	52 42 55 54 42	
MAKAPUU POINT 724 OPAEULA 870 PRI WAHIAWA 820•2 WAIALUA 847 WAIKIKI 717•2	89 89 93 92	11-18+ 9- 4 6-18	61 55 52 54 56	12-29 2-21	KAMUELA 192.2  KAMUELA AIRPORT  KEAAU 92  KEALAKEKUA 26.2  KOHALA MISSION 175.1  KONA AIRPORT 68.3	80 88 85 88 87	10= 9+ 10=24+ 8= 9 6= 4	44 55 58	1- 7 2-21
* * * ISLAND OF MOLOKAI  MOLOKAI AP 524	90	7=23	56	12-28	KULANI CAMP 79 MAUNA KEA BEACH MAUNA LOA SLOPE OBS MOUNTAIN VIEW 91 NAALEHU 14	78 96 64 85	6=25 8=25+	33 52 22 48 57	1-23 2-19 1+12+ 2-22 2-21
* * * ISLAND OF LANAI					OOKALA 223 OPIHIHALE 2 24•1 PAHALA 21 UPOLU POINT USCG 159•2	88 89 88 88	12-15 10-26	56 52 53 56	2-21
LANAI CITY 672	87	4-284	56	12-13+					

## TOTAL EVAPORATION AND WIND MOVEMENT

HAWAII 1967

Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct	Nov.	Dec.	Annua
ISLANO OF KAUAI														
LIHUE W8 AIRPORT	EVAP WIND MAX MIN	5.77 3704 79.5 62.2	5.888 2813 83.3 63.9	5.60 2799 81.7 64.9	8.07 3204 86.3 64.4	8.42 3090 89.0 68.3	9.95 2846 92.8 68.3	10.41 4437 91.1 70.2	10.30 4826 90.5 70.8	9.79 3714 91.5 70.4	9.01 3374 89.6 68.9	7.89 4802 81.8 65.8	5.568 3527 78.7 61.7	96.65 43136 86.3 66.7
# # # ISLANO OF OAHU														
HONOL <b>u</b> lu observatory	EVAP WINO MAX MIN	4.37 1011 81.6 62.6	5.198 1004 84.6 64.0	4.97 962 83.7 65.2	6.40 907 89.8 65.3	8.218 989 92.7 69.1	8.35 945 96.2 71.6	9.20 1319 95.4 73.0	8.91 1140 94.1 73.0	9.24 1020 94.1 71.9	6.69 928 91.2 71.3	5.59 1285 85.9 68.0	4.378 1285 82.2 66.2	81.49 12795 89.3 68.4
# # # ISLAND OF HAWAII														
HILO W8 AIRPORT	EVAP WINO MAX MIN	5.028 2557 79.0 61.7	4.828 2194 81.4 63.8	4.338 2162 81.9 65.2	5.338 2011 83.7 64.6	6.518 2364 86.2 67.4	6.66 2204 89.1 68.0	5.608 1931 87.4 69.7	6.588 1710 88.4 68.5	6.01 1860 89.0 67.9	5.338 1744 86.5 67.5	4.168 1747 81.1 66.5	4.728 2249 78.4 63.6	65.07 24733 84.3 66.2

	RELOCATION AND CHANGES OF EQUIPMENT	
NAME		DATE - 1967
ISLANO OF KAUAI		
EAST LAWAI 934 KUKUIULA 935	EQUIPMENT MOVEO 300 FEET N EQUIPMENT MOVEO 90 FEET S	OCTOBER 1966 FEBRUARY
ISLANO OF OAHU		
CHURCH COLLEGE LAIE KAWAIHAPAI WAIALAE-KAHALA 715	EQUIPMENT MOVEO 40D FEET S EQUIPMENT MOVEO .6 MILE ESE EQUIPMENT MOVEO 110 FEET E	JUNE 28 JUNE 14 JULY 3
ISLANO OF MAUI		
LAHAINA 361	EQUIPMENT MOVEO 75 FEET NW	JULY 12
ISLANO OF HAWAII		
HAWI 168 NAPOOPOO PAPAIKOU MAUKA POHAKULOA 107	EQUIPMENT MOVEO 10D FEET S EQUIPMENT MOVEO 80 FEET W EQUIPMENT MOVEO .75 MILE ESE EQUIPMENT MOVEO .280 FEET SE	MAY 15 NOVEMBER 1966 DECEMBER 5, 1966 APRIL 12

### STATION INDEX

							STA	ATIC	N	INDEX									HAWA I I 1967
Station	Index No.	DISTRICT	Drainage‡	Latitude	Elevation	Temp.  Precip.  Precip.  Evap.	Opened or closed during y	d T. Refer		Station	ž	District	Drainage‡	Latitude Longitude	Elevation		Precip. proc	Opened or close during y thuo would und thuo W	r. Refer
ISLAND OF KAUA1										ISLAND OF LANA!		-							
BRYDESWOOD STA 985 EAST LAWA! 934 EKW 3 RESERVOIR 1094.1 ELEELE 927 HALAULA 1110	A 0240 02 A 0456 02 0465 02 A 0470 02 A 0935 01 A 1038 02 1170 01	KAWAIHAU KOLOA KOLOA KAWAIHAU KOLOA KAWAIHAU	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11 57 159 3 12 09 159 1 11 56 159 3 11 55 159 3 12 06 159 3 12 07 159 1 11 58 159 2 22 05 159 4	9 116 2 720 0 440 2 350 5 163 9 253 6 490	37 58 66 67 66 36		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	S	LANA1 CITY 672 LANAIHALE 684 MAHANA 694	A 3461 5286 A 5301 A 5704 A 6012	01 LAHAINA 01 LAHAINA 01 LAHAINA 01 LAHAINA 01 LAHAINA 01 LAHAINA 01 LAHAINA	1 1 1 1	20 53 157 20 47 157 20 50 156 20 49 156 20 53 156 20 46 156 20 47 156	00 3 5 162 5 3 337 5 143 5 113	0 34	13 5 36 5 13 5		2 C 2 C 1 2 3 2 C 2 C
ILILIULA INTAKE 1050 INTAKE WAINIMA PC 1086 KALIHIWAI RES 1131 KANALOHULUHUU 1075 KANEMA RESERVOIR 1092 KAPAA STABLES 1104 KEALIA 1112 KEANA 944 KILAJEA 1134	2222 02 A 2227 01 A 2974 01 3099 03 A 3104 03 A 3159 03 A 3982 03 4272 03 A 4561 03	LIHUE HANALEI HANALEI WAIMEA KAWAIHOU KAWAIHAU KAWAIHAU WAIMEA HANALEI	2 2 2 1 2 3 2 1 2 1 2 3 2 1 2 3 2 1 2 2 1	22 02 159 2 22 09 159 3 32 11 159 2 22 08 159 4 42 08 159 2 22 05 159 2 20 6 159 1 158 159 2	8 1070 4 690 6 400 0 3600 2 800 0 175 9 9 3 9 5 317	33 30 30 3 13 5 27 60 73 82		2 2 2 1 2 3 C 2 2 2 2 2 2		AUWAMI-252 FIELD 46 474 HAELAAU 477 HALEAKALA 8 E S 434 HALEAKALA RANCH 432 HALEAKALA RANGH 432 HALEAKALA SUMMIT 338.4 HALEAKALA SUMMIT 338.4 HALEAKU 492.2 HALIIMAILE 423 HAMAKUAPONO 485	0541 A 0790 A 0995 A 0999 1004 1008 1016 1075	02 MAKAWAO 02 MAKAWAO 02 MAKAWAO	4 4 1 1 2 2 1	20 37 156 20 59 156 20 57 156 20 51 156 20 50 156 20 46 156 20 43 156 20 55 156 20 55 156	8 105 6 298 18 210 19 185 703 16 996 17 69	0 0 0 0 0 0 0 2 2 7	5 76. 29 7		2 2 2 1 2 3 1 2 3 C
KILAUEA POINT 1133 KITAMO 1037-1 KOLO 1033 KOLOA 936 KOLOA MAUKA 994 KOLOKO RES 1137 KUKUTULA 935 LIMUE VARIETY STA LIMUE VARIETY STA LIMUE 1020	4568 0: 4650 0: 4735 0: 4742 0: A 4750 0:	L HANALE1 3 WAIMEA 3 WAIMEA 2 KOLOA 2 KOLOA 1 KAWAIHAU 2 KOLOA 2 LIHUE 2 LIHUE	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22 11 159 2 22 14 159 2 22 02 159 4 22 04 159 4 21 55 159 2 22 11 159 2 22 11 159 2 21 54 159 3 22 01 159 2 21 59 159 2	4 180 1 2150 6 36 8 240 9 640 3 737 0 100 3 375 2 207	37 16 17 31 81 63 34 65 5 63 17 17 1		1 2 3 c 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		HONOKOHUA 493 HONOLUA FLD 49 494	1125 1148 A 1552 A 1882 A 1887 A 1914 A 1935	01 MANA 01 MANA 02 MANA 02 HAKAWAO 04 LAMAINA 04 LAHAINA 04 LAHAINA 03 WALUKU 03 WALUKU 03 MAUL	1 1 2 4 4 4 1	20 45 156 20 48 156 20 41 156 20 45 156 20 58 156 21 00 156 21 01 156 20 47 156 20 53 156 20 59 156	01 6 01 32 13 693 36 87 39 13 38 12	1 17 5 0 5 5 0 0	5 17 19 4 3 40	DEC	2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
MAKAMUENA POINT MAKAWELI 965 MANA 1026 M + M 1001 MOMINI UPR CROSS 1083	5785 0 5864 0 6082 0 6097 0 6433 0 6529 0 6565 0 6880 0	2 KOLOA	3 2 3 2 3 2 3 2 3 2 3 2 3 3 2 3 3 2 3	21 52 159 2 21 55 159 3 22 02 159 4 21 55 159 3 22 07 159 3 22 11 159 2 22 04 159 3 22 04 159 2 22 04 159 2	7 52 8 140 6 11 8 300 6 3500 0 330 10 5075 4 1250 8 1110	10 10 76 54 63 41 22 28 40	1	1 2 3	s	KAHOMA INTAKE 374 KAHULUI WB AP KAHULUI WB AP KAUAULA 146 KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEHUA 420 KENHAE 346 KENAKAE 346 KENAKAE 346 KENAKAE 346 KENAKAE 311	2630 2679 A 3433 3576 3910 A 4091 4193	04 LAHAINA 03 WAILUKU 01 MAKAWAO 01 MAKAWAO 04 LAHAINA 03 MAKAWAO 01 HANA 02 HANA 03 MAKAWAO 03 WAILUKU	1 4 2 3 1 2 3	20 54 156 20 54 156 20 51 156 20 54 156 20 54 156 20 53 156 20 52 156 20 52 156 20 52 156 20 42 156 20 47 156	16 252 13 70 38 158 108 102 23 46 10 98 27 2	8 12 0 55 0 55	57 12 43 64 49 49 63 4		2 3 2 1 2 3 2 2 C 2 2 2 2 2 2
PH WAINIHA 1115 PRINCEVILLE RANCH 1117 PUEHU RIOGE 1040 PUH1 1013 RESERVOIR 6 1004 STABLE CAMP 1055-1 WANIAWA 930	8155 0 8165 0 8205 0 A 8217 0 A 8573 0 A 8941 0 A 8949 0 8958 0	HANALE1 HANALE1 WAIMEA LIHUE LIHUE LIHUE KOLOA	1 3 2 2 2 2 2 2 2 2 2 2 2	22 12 159 3 22 13 159 2 22 01 159 4 21 57 159 2 21 57 159 2 22 04 159 3 21 54 159 3 22 01 159 3	14 101 295 12 1660 4 329 7 420 17 740 14 215 11 2100 565	60 58 28 32 54 63 67 38 35		2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		KIPAHULU 258 KURUI 380 KULA MEIGHTS 323+2 KULA MEIGHTS 323+2 KULA SANATORIUH 267 LAHAINA 31NTAKE 376 LAUNIUPUKO INTAKE 376 LAUNIUPUKO VILLAGE 372 LUPI UPPER 442 MAHINAHINA 466 MALUHIA 482+2	A 4887 5003 5006 5177 A 5404 A 5408 A 5665 A 5715 6042	O1 HANA O4 LAMAINA O2 MAKAWAO O2 MAKAWAO O4 LAMAINA O4 LAMAINA O4 LAMAINA O1 MAKAWAO O4 LAMAINA O3 WAILUKU	4 2 2 4 4 1 4	20 53 156 20 51 156 20 51 156 20 51 156 20 53 156 20 57 156 20 57 156	35 576 19 254 22 300 41 4 37 126 39 22 15 124 40 71 32 104	8 0 14 30 5 23 0 0 0	67 50 54 54 41 70 54	Da	2 S S 1 2 3 1 2 3 2 2 2 2 2 C C
WAIAWA 943 WAILUA KAI 1065 WAIMEA 947 WEST LAWAI 931 ISLAND OF OAHU AIEA FIELD 625 761	9253, 0 A 9467 0 9629 0 A 9955 0	3 WAIMEA 2 LIHUE 3 WAIMEA 2 KOLOA	3 2 3 2 3	21 59 159 4 22 02 159 2 21 57 159 4 21 54 159 3	3 10 11 50 11 20 11 210	73 5 55 66		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		MOKUPEA 475 NAKALELE = FLD 60-497 OLINOA 332 OLUWALU 296 OLUWALU GULCH 377 PAAKEA 350 PAIA 406 PANILEIMULU 259+2 PAUWELA 490 POHAKEA BRIDGE 307+2	A 6645 A 7040 7059 A 7066 7194 7566 A 7674 A 7857	04 LAMAINA 04 LAMAINA 01 MAKAWAO 04 LAMAINA 04 LAMAINA 01 HANA 01 WAILUKU 02 MANA 03 MAKAWAO	4 1 4 4 1 1 2	20 59 156 21 02 156 20 48 156 20 49 156 20 51 156 20 55 156 20 55 156 20 55 156 20 55 156 20 49 156	36 34 17 41 38 36 80 07 126 23 17 08 357	7 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	30 50 46 56 63 63 63 4	MAR	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
CHURCH COLLEGE LAIE COCONUT ISLAND 840-1 DOWSETT HIGHLANDS 780- EWA PLANTATION 7-1 HALAWA SHAFT 771-2 HELEMAND INTAKE 881 HOKULOA 725-2	A 0300 0 0340 0 0350 0 0438 0 0507 0 0964 0 A 1384 0 A 1540 0	1 KOOLAUPOKO 1 KOOLAUPOKO 2 HONOLULU 3 EWA 2 HONOLULU 5 WAIALUA 6 EWA	2 3 2 5 3	21 19 157 5 21 25 158 6 21 39 157 5 21 26 157 6 21 21 157 5 21 21 158 6 21 23 157 5 21 23 158 6 21 24 158 6	56 20 17 13 50 565 02 42 54 170 00 1274 06 2220	12 1 10 61 76 50	мау	1 2 3		POLIPOLI SPRINGS 267-2 PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400-2 TWIN GATES 261-3 UKULELE 333	A 8070 A 8336 A 8444 8543 8553 8688 A 8742 A 8744	03 WAILUKU 02 MAKAWAO 01 HANA 04 LAMAINA 03 WAILUKU 01 HANA 03 WAILUKU 03 MAKAWAO 01 MAKAWAO	2 1 4 3 1 3 3	20 41 156 20 50 156 20 55 156 20 53 156 20 46 156 20 46 156 20 46 156 20 46 156	20 615 13 298 38 256 27 6 03 216 25 8 23 131 15 52	000000000000000000000000000000000000000	39 56 63 60 44		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
HONOLULU OBSERV 702-2 #HONOLULU WBAP 703 #HONOLULU SUBSTA 704 H S P A EXP STA 707 KAALAKE! 724-6 KAHANA 883 KAHUKU 912 KAILUA FIRE STA 791-3 KALIMI RES SITE 777 KAMEMAME 724-7	1924 0 2146 0 2269 0 A 2462 0 2570 0 2683 0 2960 0	3 EWA 2 HONOLULU 2 HONOLULU 2 HONOLULU 2 HONOLULU 1 KOOLAULOA 1 KOOLAULOA 1 KOOLAUPOKO 2 HONOLULU 1 KOOLAUPOKO	2 2 2 1 1 1 2 1	21 19 158 0 21 20 157 3 21 19 157 5 21 18 157 5 21 18 157 4 21 31 157 4 21 41 157 5 21 24 157 4 21 23 157 5 21 29 157 4	55 7 52 12 50 50 54 800 57 25 55 10 50 910 61 1380	50 58 75 9 40	5	2 4 1 2 3 1 2 3 0 2 3 2 3 2 2 0 2 2 0		UKUMEHAME 301 ULDALAKUA RANCH 250 WAHIKULI 364 WAIEHU CAMP 464 WAIEHU CAMP 462 WAIKAMOI 449 WAIKAMOI DAM 336 WAIKAPU 390 *AILUA IAI 346 WAILUKU 392 WAIDPAI RANCH 256	8760 A 8955 9275 9315 A 9332 A 9335 9376 9460	04 LAHAINA 02 MAKAWAO 04 LAHAINA 03 WAILUKU 04 WAILUKU 01 HANA 01 MAKAWAO 03 WAILUKU 01 HANA 03 WAILUKU 01 HANA	4 3 4 1 1 3 1	20 48 156 20 39 156 20 54 156 20 55 156 20 57 156 20 52 156 20 49 156 20 48 156 20 48 156	401 56 31 32 32 30 12 120 14 43 31 4 09 26	10 10 10 10 10 10 10 10 10 10 10 10 10 1	36 13 47 58 51 61 50 73		2 2 2 2 2 2 2 2 2 3 5 1 2 3
KAWELA MAUKA 906.3 KEMOO CAMP 8 855 KOOLAU DAM 833	A 3123 0 3220 0 A 3268 0 A 3734 0 A 3741 0 3825 0 A 4318 0 4766 0	1 KOOLAUPOKO 1 KOOLAULOA 1 KOOLAULOA 2 HONOLULU 5 WAIALUA 5 WAIALUA 2 KOOLAUPOKO 3 WAIALUA 5 WAIALUA 6 WAIALUA 1 KOOLAUPOKO	1 2 5 5 1 5 5	21 33 158 21 30 157 21 39 157	47 365 54 10 52 614 11 20 59 1180 00 1050 05 725 58 1160	23 45 38 12	AF	1 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		ISLANO OF MAWAII AHUA UMI 75 AWINI 182-1 EAST HONOKANE 1838 HAINA 214 HAKALAU 142 HALEMAUMAU 52 HALEPIULA 117	A 0040 A 0190 A 0450 0840 0905 A 1033 A 1060	02 HANA  05 N KONA 01 N KOHALA 01 S KOHALA 01 S HILO 02 S HILO 03 LAU 04 HAMAKUA	5 1 1 1 2 3	20 38 156 19 38 155 20 10 155 20 07 155 20 06 155 19 54 155 19 24 155 19 56 155	47 52: 43 18: 43 42: 28 4: 08 10 17 36: 24 57	70 10 10 10 10 10 10 10 10 10 10 10 10 10	76 35 53		2 2 2 1 2 3 C 2 2
LUALUALEI 804 LUALUALEI WTR TUNNEL LULUKU 761-7 LUNALIICO HOME 724-2 MARAHA KAI 796 MARAHA VALLEY 800-1 MARAPUU POINT 724 MANOA TUNNEL 2 716 MAUNAWILI 787-1	A 5650 0 5655 0 5675 0 5766 0 5781 0 6122 0 6130 0 6222 0	WAIANAE  WAIANAE  1 KOOLAUPOKO  12 HONOLULU  4 WAIANAE  WAIANAE  2 HONOLULU  14 HONOLULU  15 KOOLAUPOKO	4 1 2 4 4 2 2 2 2	21 26 158 21 29 158 21 24 157 21 17 157 21 28 158 21 19 157 21 19 157 21 20 157 21 21 21 157 21 21 21 157	08 1500 49 240 42 40 13 25 12 160 39 538 49 220 48 650 46 410	40	JUN	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		HALEPOMAKU 111 HAWAII VOLCAS NP HO 54 HAWI 168 HILO WB AIRPORT HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAU 27 HONOKANE 181-1 HONOMU MAUKA 138 HONAUNU 71	1303 A 1339 R 1492 A 1557 A 1562 1665 1701 A 1864	DZ MAMARUA DZ KAU OI N KOHALA OZ S HILO O4 N KONA O4 N KONA O4 S KONA O2 N HILO OI N KOHALA OZ S HILO OI N KOHALA OZ S HILO OI N KOHALA OZ S HILO OZ S HILO OZ N KONA	1 2 4 4 2 1	19 46 155 19 26 155 20 14 155 19 43 155 19 38 155 19 37 155 19 27 155 19 56 155 20 09 155 19 50 155	16 39 50 61 04 55 32 59 53 10 09 31 44 81	71 54 27 21 20 14 39	28 55 68 25 39 47 29 74 62 29 38	1.2	1 2 3 4 2 2 C 1 2 34 2 2 2 2 2
MONALUA 770 MOUNT KAALA 844 NUUANU RES 4 763 NUUANU RESERVOIR 5 775 OPAEULA 870 PAUOLO VALLEY 718 PAUOA FLATS 764 PERRL CITY TERCE 754-1 PORTLOCK ROAD 724-4 PRI WAHIAWA 820-2	6553 C 6928 C A 6933 C 7150 C 7664 C 7810 C 7933 C 8126 C 8172 C	12 HONOLULU 4 WAIANAE 12 HONOLULU 12 HONOLULU 12 HONOLULU 12 HONOLULU 13 HONOLULU 14 HONOLULU 15 WAHIAWA	2 2 5 2 2 3 2 5	21 21 157 21 31 158 21 21 157 21 21 157 21 21 157 21 34 158 21 20 157 21 21 157 21 21 157 21 21 157 21 25 157 21 27 158	09 4025 49 1048 50 410 02 1060 995 48 1640 58 240 01 700	63 78 62 63 40 40 40	,	1 2 3 0 2 2 2 2 1 2 3 0		HUALALA 172 HUALALA 171 HUALALA 171 KAAUALOA 29 KAHJAWA1 3.4 KAINALIU 738 KALAPANA NO 1 67.6 KAMAGA NO 2 5 KAMUELA 192.2 KAMUELA 192.2 KAMUELA AIRPORT	A 2151 A 2156 A 2249 A 2327 2512 2751 2894	04 N KONA 04 N KONA 03 KAU 04 N KONA 03 KAU 04 N KONA 02 S HILO 03 KAU 01 S KOHALA 05 S KOHALA	3 4 2 2 3	19 42 155 19 45 155 19 08 155 19 30 155 19 30 155 19 32 155 19 32 155 19 02 155 20 01 155 20 00 155 19 17 155	52 81' 59 19' 34 13' 55 13' 46 37' 56 15' 02' 40 13	90 50 30 30 30 30 30 31	39 64 29 67 37 1	JUL	2 2 2 2 1 2 3 2 1 2 3 1 2 3
PUNALUU 884 PUNCHBOML CRATER 709 ST STEPHENS SEM 788 TANTALUS PEAK 780 TANTALUS 2 780,5 WUNIV OF HAWAII 713 WAHJAWA DAM 863 WAIJAHOLE 837 WAIJAHOLE 837 WAIJALAE KAHALA 715 WAJALUA 847	A 8316 (8600 8730 (8738 8738 8815 8845 8945 8945 89185 (9185 89195 (8718 8718 8718 8718 8718 8718 8718 871	KOOLAULOA HONOLULU DI KOOLAUPOKO 22 HONOLULU 22 HONOLULU 22 HONOLULU 23 HONOLULU 35 WAHIAWA 11 KOOLAUPOKO 40 HONOLULU 36 WAIALWA 37 WAIALUA	2 2 5	21 35 157 21 19 157 21 22 157 21 20 157 21 20 157 21 30 158 21 28 157 21 30 158 21 28 157 21 35 158	47 486 49 2000 50 1325 49 79 03 854 53 745 47 40 07 33	25 4 42 54 51 45 60 67		2 2		KAPAPALA RANCH 36 KAPOHO LANOINO 935 KAUMANA 88-1 KAWAINU! LOWEF 193 KEAAU 92 KEA!WA CAMP 22-1 KEALAACKUA 26-2 KEHENA 181-2 KEHENA 181-2 KEHENA 181-2 KEHENA 181-2 KEHENA 181-2	3300 A 3369 3510 A 3770 3872 3925 3977 4098 A 4245	03 KAU 02 PUNA 02 S HILO 01 HAMAKUA 02 PUNA 03 KAU 04 S KONA 02 HAMAKUA 01 N FOHALA	2 1 2 3 4 2	19 41 155 20 05: 155 19 38 155 19 30 155 19 30 155 19 55 155 20 07 155	52 2 09 11 39 10 02 2 29 17 55 14 21 52 45 38	23 30 80 80 90 80 80	81 5, 29 57 5 11		2 C 2 C 2 C 1 2 3 C C 2 C C 2 C C C C C C C C C C C C
WAIANAE 798 WAIANA HAUKA 803 WAIANA 836 WAIKANE 885 WAIKANE 885 WAILUPE RESERVOIR 170 WAILUPE VLY SCH 723+6 WAIMANALO 794 WAIMEA 892 WAIPAHU 750 WILHELMINA RISE 721 ISLAND OF MOLONAI	A 9238 (A 9261 (A 9340 (9397 (A 9495 (9500 (A 9521 (A 9593 (A 9738 (A	COLAUPOKO DO HONOLULU DO HONOLULU DO HONOLULU DO KOOLAUPOKO DO WAJALUA	2 2 2 1 5	21 27 158 21 29 158 21 28 157 21 30 157 21 16 157 21 18 157 21 18 157 21 21 157 21 21 157 21 21 158 21 21 158 21 21 158 21 21 158 21 21 158	09 1575 56 800 53 760 49 10 45 180 44 60 04 420	62 51 51 3 3 13 68 51 69		2		KEHNA MESERVOIR 176-1 KIDLAKAA A + F 6 KIPA 03-2 KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175-1 KOIA A JEGO 05-2 KUNLIHAELE MILL 199 KUNLIHAELE MILL 206 KULANI CAMP 79 KULANI MAUKA 76 KULANI MAUKA 76	A 4670 A 4670 A 4675 4680 A 4685 4764 4815 4928 4938	O2 S HILO O1 N KOMALA O1 N KOMALA O1 N KOMALA O1 N KOMALA O1 HAMAKUA	1 1 1 1 4 1 1 1 1	20 10 155 19 04 155 19 44 155 20 14 155 20 14 155 20 14 155 20 05 155 20 07 155 20 02 155 20 02 155 20 07 155 20 08 155 20 19 33 155	09 14 47 3 47 9 48 5 38 7 01, 21 8 35 9 34 3 18, 51	90 09 60 37 60 20 15 14 40 80	57		2 2 1 2 3 1 2 3 C 2 2 2 2 2 2 2 2 3 2
RALAUPAPA 563 RAMALO MAURA 542-6 RAMARARAI 536-8 RAMARARAI 536-8 ROMEREE PENS 551 MAPULEHU 542 MAPULEHU 542 MUUHANA 511 MOLOKAI AP 524 MUUHANA FANAMA 542-1 WAIKOLU 540	3046 A 3541 3547 A 4394 A 4778 6138 6190 6534 8549	DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI DI MOLOKAI	1 1 1 1 1 1 1 1 1	21 12 156 21 04 156 21 06 157 21 06 157 21 12 157 21 09 156 21 09 156 21 09 156 21 08 156	52 60 01 12 01 70 12 560 02 870 48 20 13 1070 06 450 44 700	13 4 68 48 39 16 18		2 2 2 2 2 2 1 2 3		KULANI SCHOOL SITE 78 LALAMILO FLO OFF 191.1 LAVA TREE PARN 66.1 MANUKA 2 MAUNA KEA BEACH MAUNA LOA SLOPE OBS MIDDLE HOLUALOA 68.1 MODULE 95% 14.7.1	5260 5330 5460 A 6134 6180 6198 6268 A 6270	02 5 H1LO 01 5 FOMALA 04 N KONA 02 PUNA 03 KAU 04 S KOHALA 05 HAMAKUA 04 N KONA 01 N KOHALA	1 4 2 3 1 5 4	2 19 35 155 12 0 01 155 2 19 29 154 3 19 07 155 5 19 32 155 4 19 37 155 1 20 01 155 5 19 32 155 4 19 37 155 3 19 11 155	41 26 58 15 54 6 50 17 50 1 35 111 58 4 50 13	15 30 50 60 03 46 1.	20 25 38 11 12 25 3 48	AUG	2 2 1 2 3 1 2 3 2 2 2

~ 159

998	u	A	ı	ı
	1	9	6	7

CONTINUED			1	T		V( 0 )
Station	Index No. Division No.	Latitude Longitude Longitu	sed	Index No. Division No.	Drainage‡ Latitude Longitude	Years of opened the property of the property o
ISLAND OF HAVAII MOUNTAIN VIEW 91 NAALERU 18 NAACO FOREST 38.6 NACO FOREST 38.6 PARAILO 221 PAHALA 21 PINGUAN AND 18.6 PINGUAN AND 18.6 PINGUAN AND 18.6 PINGUAN AND 19.7 PUM CAPO 1	555 02 PUMA A 5580 03 FAU A 6597 04 5 KUNA 6573 02 PUMA A 6596 01 N COMALA 7131 02 N HILD 7136 04 5 KONA 7714 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7312 01 FAMARKUA 7316 05 FAU 7457 02 PUMA 7459 03 FAU 7461 03 FAU 7711 02 5 HILD 6000 02 5 HILD 6000 02 5 HILD 6000 02 5 HILD 6000 03 5 HILD 6000 04 FAMARKUA 8186 05 KONALA 8380 01 5 KONALA	2 19 31 155 07 1530 30 67 3 19 0 61 51 51 51 51 51 61 51 61 51 61 51 61 51 61 51 61 61 61 61 61 61 61 61 61 61 61 61 61	12 3   PUU KIHE 120     1 2 3   PUU KIHE 120     2   PUU LEHUA 73     2   PUU LEHUA 73     2   PUU MALL 113     3   PUU MALL 113     4   PUOCOLAL 13     5   PUU MANA 9-1     2   SADDLE ROAD 1 84     2   SADDLE ROAD 1 84     3   SOUTH POINT CORRAL 3     2   SADDLE ROAD 1 84     2   VINICA 118     2   VINICA 118     2   VINICA 120     2   VALIAKA SCD 89.2     2   VALIAKA SCD 89.2     2   VALIAKA SCD 89.2     3   VALIAKA SCD 89.2     4   VALIAKA SCD 89.2     5   VALIA	A 8393 01 HAMAKUA A 8462 05 HAMAKUA A 8460 04 N KOMA B 8515 01 HAMAKUA A 8515 01 HAMAKUA B 8515 05 N KOMA A 8590 02 S HILO 8675 03 KAU 8677 03 KAU 8679 03 KAU 8678 03 KAU 8678 03 KAU 8678 03 KAU 8678 03 KAU 8678 03 KAU	1 19 54 155 2: 1 19 54 155 3: 1 19 50 155 3: 4 19 54 155 4: 1 20 12 155 5: 2 19 44 155 2: 2 19 44 155 2: 2 19 42 155 5: 2 19 59 155 2: 1 20 08 155 4	\$ 7440   35   2   4   5   6   6   6   6   6   6   6   6   6

ORAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTH-EASTERN 3-SOUTH-WESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN
5-NORTH-CENTRAL MOLOKAI: 1-(NO DYTRA-ISLAND DIVISIONS) LANAI: 1-(NO DYTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN
2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Savaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. 0. Box 9850, Homolulu, Hawali 98811, or to any Weather Bureau Office mear you. Additional precipitation data are contained in "HOURLY PRECIPITATION DATA BANAIT".

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are. Temperature in F, precipitation and evaporation in inches, and wind sovement in miles.

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the Evaporation and Wind table.
Wax and Win in Evaporation and Wind table refer to extremes of temperature of water in pan as recorded during 24 hours ending at time of observation.

NORMALS for all stations are climatological normals based on the period 1931-1960. "DEP" in Table 4 refers to departures from long-term means based on periods varying from 10 to 29 years which are used in place of normals.

STATION NAMES: Figures and letters following the station name, such as 181.1, are Pineapple Research Institute gage numbers.

DELAYED DATA AND CORRECTIONS will be carried in the June and December 1ssues of Climatological Data.

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- No record.
- + Also on earlier date (dates) or months.
- \* Amount included in following measurement.
- A The letter "A" shown following station name, (Table 2 and Station Index): Amountw carried in the monthly "Precipitation" column are for the period from last measurement of a preceding month through the last measurement of the current month. See Daily Procipitation Table of the monthly Climatological Data for the date of measurement. Measurements made on the first of a month are credited to the last day of the preceding month.
- E Amount 1s wholly or partially estimated.
- H One or more days record missing, if average value is entered, less than 10 days record is missing. See monthly Climatological Data for detailed daily record.
- R Amounts from recording gage
- T Trace, an amount too small to measure
- V Includes total for previous month. V in annual column means total is for a two-year period.

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING

- s Thereconsters are generally exposed in a shelter located a few feet above sod covered ground; however, the reference indicates that the thereconsters are exposed in a shelter located on the roof of a building.
- C In Special Column of Station Index indicates Recording Rain Gage Station. Hourly precipitation values are processed for special purposes, and are published later in the "Hourly Precipitation Data" builetin. If daily amounts are published in "Cilmatological Data" builetin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Hourly Precipitation Data" builetin.
- S Storage precipitation station. Precipitation measurements, made at hrregular intervals, will be published in the December issue of Climatological

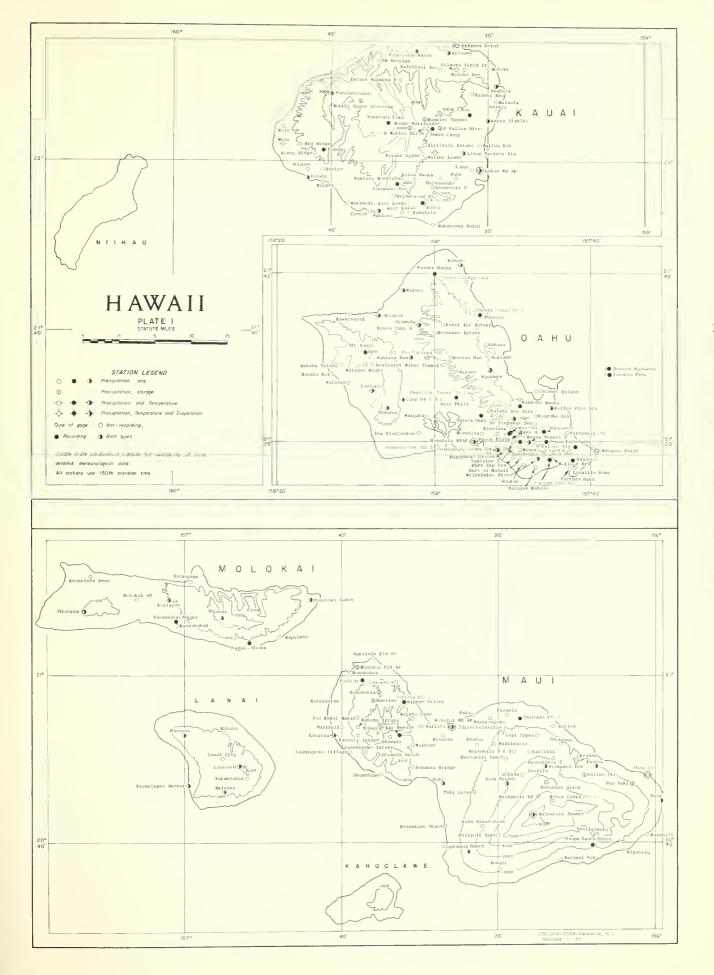
Years of record as shown in the Station Index are approximate since gaps in the records may not have been considered in arriving at the totals shown

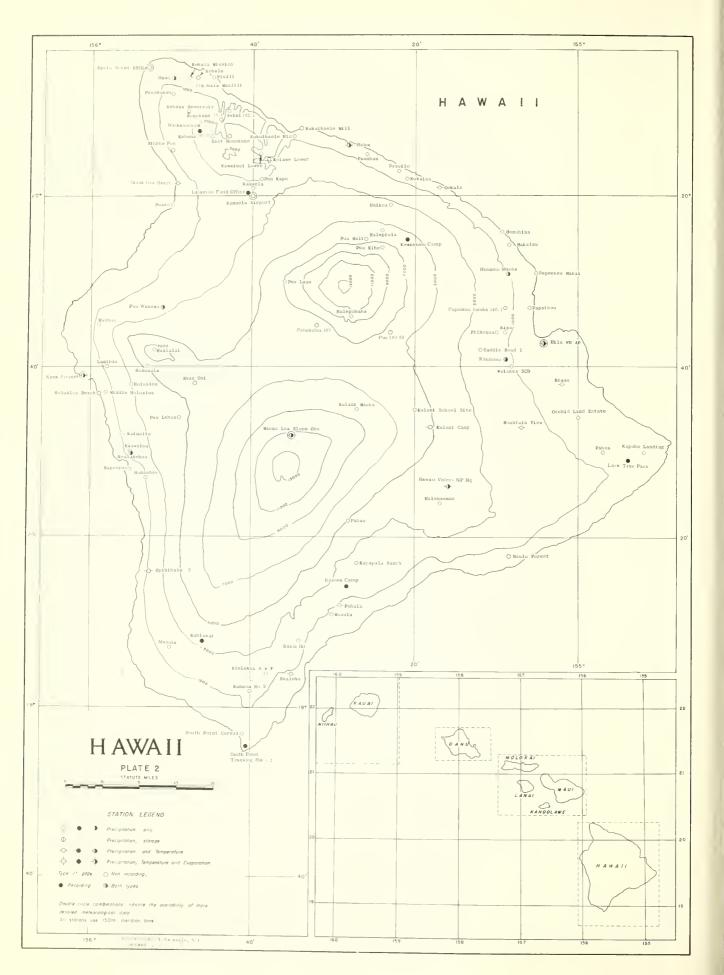
The four-digit identification numbers in the index are assigned on an island basis. There will be no duplication of numbers within an island.

Information concerning the history of changes in location, elevations, exposures, etc., of substations through 1957 may be found in the publication may be obtained from the Superintendent of Documents, Government Printing Office, Rashington, D. C. 20402, for 40 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Data, obtained as indicated above, price is cents.

Subscription Price: 20 cents por copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittances and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C. 2042.

USCOMM-ESSA-ASHEVILLE-5/21/68-990





CLIMATOLOGICAL

U.S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE

MAY 19 1968

HAWAII

JANUARY 1968

olume 64

No. 1

# CLIMATOLOGICAL DATA

													/	001			C	8.1					
	i		1		Tem	perati	ure	- 1	- 1					-	ECH	&	Precip	pitotion					
Station					9	}				Ma	o. of I	Min			ō	À		Sno	w, Sleet	1		o. of I	
3.0		Average Moximum	Averoge	Average	Departure From Normal	Highest	Dote	Lowest	Date	50 00		5 3 2	. M.	Totol	Departure From Normal	Greatest Day	Date	Total	Mox Depth on Ground	Date	5	.50 or More	1.00 or More
ISLANO CF KAUAI																			-				
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIFLO 17 1135 KILAUEA POINT 1133	A A	63.4 79.6M	50.6 65.7M	57.0 72.7M			14+	3 9 5 8	9	0	0	0	0	7.44 11.62 7.75 9.82 6.53	.72	2.70 3.25 2.14 2.16	16 16	.0 .0 .0	(		13	7	3
KOLOA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA DITCH 1051 PH WAINIHA 1115	A R	76.4 78.9	62.6 62.7	69.5 70.8	- 1.4 3		20 22	56 57	12	0	0	0	0	10.39 7.43 5.01 19.10 9.96	3.48 1.92 .95	2.50 2.43 1.88	16 16	.0 .0 .0			6 5	3	3 3
PUEHU RIOGF 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	А	77.3	58.5	67.9		81	21+	50	12	0	0	0	0	5.61 9.73 9.30 4.40	4.70 .72	2.70 1.97 1.75	16	.0			10	7	2 4 2
ISLANO				67.6									1	8.86				•0					
ISLANO OF OAHU												1											
HONOLULU ORSERV 702.2 HONOLULU WRAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU OAM 833	R	80.0 M 76.5	66.0 62.4M 66.3	73.0 M 71.4	.5 1		22+		10+	0 0	0	0000	0 0	10.71 8.17 7.88 11.10 14.44	4.41 2.74 3.80 6.65	4.65 3.21 2.81 3.22	16 17	.0		000000000000000000000000000000000000000	9 8	3 3 4	2 2 4
LUALUALE1 804 MAKAPUU POINT 724 NUUANU HE5 4 783 OPAEULA 870 PALOLO VALLEY 718		75.3 M	67.3	71.3 M		78	26+	63	31	0	0	0	0	6.51 7.39 11.32 13.10 11.20	3.80 .51 6.37 .28	3.50 3.17 3.98 3.16	17	.0		0	8 8 9	2 4 5	2 1 3
PRI WAH1AWA 820.2 PUNALUU 884 WAH1AWA DAM 863 WA1AHOLE 837 WA1ALUA 847	A A	78.6	60.3	69.3	4		27	54 56	25+	0		0	0	13.40 10.68 13.51 8.52	1.12	3.65 3.20	17	.0 .0 .0		0	9	6	2
WA1K1K1 717.2		81.2	64.2	72.7			16		31+	0	0	0	0	6.03		2.32				0	7	3	2
WAIPAHU 750 ISLANO	А			71.3										9.79	5.63	3.44	5	.0					
* * * 1SLAND OF MOLOKAI																							
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKA1 AP 524 ISLANO	A	76.7M	65 <b>.</b> 5M	71.1M		81	29	58	Q	0	0	0	0	8.55 10.90 6.73		3.13 3.13 2.82 3.95	16	.00		0000	8	5	5
15LAND OF LANAI																							
LANAI CITY 672		74 • OM	61.2M		2.0	79	23+	56	31+	0	0	0	0	7.29		1.95	28	• 0	i	0	12	4	4
1 SLANO * * *				67.6										7.29				• •					
15LANO OF MAUI																							
HALFAKALA B E S 434 HALEAKALA R5 338 HANA AIRPORT HONOKCHUA 493 KAHULUI WB AP	A A R	59.4 78.8 77.8	42.6 64.6	51.0 71.7 70.8	- 1.3	84	22 23+	57	15+ 13+	0	0	0000	0	4.52 8.28 11.24 6.89 4.31	2,83	1.07 2.38 3.90 2.05	17 5			0 0 0 0	9 7 10 8	4 6 4	1 4 3
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	А	78.4 69.4 79.9	59.1 55.0 64.8	68.8 62.2 72.4	. 8	78 84	22	47	13 • 10 30 •	0	0	0 00	0 00	9.65 16.30 12.17 6.81 4.20	2.23 2.19	3.82 3.10 1.44	17	.0		0 0 0 0	10 10 5 4	6 2 3	2 4 2 2
PA1A 406 WAILUKU 392		79.8	61.3	70.6	- 1.1	85	16	54	10	0	0	0	0	5.92 5.99	2.05 2.20	1.85		•0		0	9	5 4	3
15LANO				66.8										8.02				• (					

HAWAII JANUARY 1968

CONTINUED																								
		Temperature													Precipitation									
											1	No. of Doys							Snow, Sleet			No. of Doys		
Stotion		Average	Average Minimum	Average	Deporture From Normol			Lowest	Date		М	Mox. Min.				ormol	st Doy			Depth		More	More	More
						Highest	Dote				90° or Above	32° or Below	32° or Below	0 or Below	Total	Departure Fram Normol	Greatest Doy	Dote	Tatol	Max. Do	Dote	6	.50 or A	1.00 or
ISLAND CF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HO 54 HILO WB AIRPORT HUEHUE 92A	R	77.2 65.6M 80.6	61.3 49.8M 65.2	69.3 57.7M 72.9	2 4 2.1	71	21+ 22 21	56 44 60			0		0 0	0	3.37 15.23 4.77 6.20	- 1.69 3.01 - 7.05 2.07	1.05 3.30 1.14	28	.0	0		7 16 9	2 8	1 6 1
KAINALIU 738	^	76.4	60.0	68.2		80	19	54	30+		0	0	0	0	5.96	2.00	1.91	26	.0	Ò		7	4	3
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1		70.9 80.9 77.0	50.9 62.1 60.9	60.9 71.5 69.0	1.2	76 85 80	22+	58	31 12+ 13		0	0	0	0	3.39 7.66 5.75 9.35	- 4.90	.8B 2.08 2.04 2.84	5 19	•0			6 11 8	3 5 4	0 2 3
KONA AIRPORT 68.3	Α	82.0	64.4	73.2		85	23+	61	31+		0	0	0	0	3.87		1.98		.0			7	2	1
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107	A	64.0M 83.0 76.8	43.4M 66.3 61.0	53.7M 74.7 68.9	1	75 87 80	20+	61	10 30+ 13		0		0 0		5.94 6.73 4.48 17.24 3.63	9.21	2.25 1.06 2.16 7.80	19 26	.0	0		11 5 11	3 5	1 1 1 5
PUAKO 95A PUU WAAWAA 94.1 UMIKOA 11B WAIAKEA SCO 88.2															4.05 3.19 4.81 7.04	04 - 2.35	1 • 49 1 • 43 1 • 49 1 • 82	26 3	.0 .0	0		10	3 6	3 1 2 2
ISLANO				67.3											6.46				• 0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 88° ON THE 21+ AT KILAUEA POINT 1133, KAUAI LOWEST TEMPERATURE: 25° ON THE 29TH AT MAUNA LOA SLOPE OBS, HAWAII GREATEST TOTAL PRECIPITATION: 21.21 INCHES AT NAULA FOREST 38.6, HAWA11 LEAST TOTAL PRECIPITATION: 1.61 INCHES AT MAUNA LOA SLOPE 085, HAWAII GREATEST ONE-DAY PRECIPITATION: 9.55 INCHES ON THE 230 AT WAIKOLU 540, MOLOKAI

#### SPECIAL WEATHER SUMMARY

The most severe weather event of the month occurred during the early morning of the 5th, when torrential rains and flash flooding did an estimated \$1.2 million of damage to the Pearl City-Waiawa area of Oahu. The rains, associated with deep and nearly stationary low pressure areas in the upper atmosphere and at the surface over the islands, were extremely intense at times, and heaviest in the mountains behind Pearl City-Waiawa, where at least 9 inches fell within several hours.

Flood waters, overwhelming Waimanu and Waiawa Streams, raged through the Waimalu Elementary School and the Pearl City Shopping Center, leaving water marks more than 6-feet high on the inside walls of one supermarket. Several houses in the Pearl City Highlands were damaged and several others, as well as field crops and banana trees, were destroyed on the upslope side of Kamehameha Highway by the flooding Waiawa Stream.

The severity of the flood was increased when a car and several large tree limbs blocked a culvert in Waimanu Stream.

Although no human lives were lost, scores of dogs, cats, goats, and cows were swept to their deaths and buried beneath tons of mud.

The worst flooding occurred between 2:00 and 4:00 a.m. A recording rain gage at Pearl City Terrace, between the Koolau Mountains and Pearl City, reported about 2 inches of rain from 2:15 to 2:30 a.m., 3-1/2 inches between 2:15 and 3:00 a.m., and nearly 7 inches in a 7-hour period. The Small Business Administration declared the flood-site a disaster area.

On the 16th, a surface cold front and an upper atmospheric low to the west of it brought strong southwesterly winds, thunderstorms, heavy rain and light hail to the island chain. At 8:15 a.m., severe turbulence injured 3 persons, one seriously, aboard a military aircraft west of Honolulu, 30 minutes before landing time.

A band of severe thunderstorms and strong winds struck Oahu near noon, causing jet aircraft to be diverted to Hilo Airport, Hawaii. The heavy showers were accompanied by winds gusting to over 50 m.p.h. and by frequent lightning in some areas. Lightning slightly damaged a house in Aiea and another in Kailua, Oahu, and knocked 3 TV stations off the air. Numerous power failures were reported.

At about 11:25 a.m. strong local winds extensively damaged two warehouses in Honolulu's Kapalama district, stripping away large sections of corrugated tin roofing, while leaving untouched a pile of light wooden supports several hundred yards

away. At Honolulu International Airport, over 1/2 inch of rain fell in 5 minutes and 1.85 inches in 30 minutes.

What may have been the same squall line reached Molokai at about 2:30 p.m., dumping approximately 2-3/4 inches of rain in 50 minutes on Kaunakakai and 2-1/4 inches in 40 minutes on Kualapuu.

Brief falls of small hail (1/8-inch or less in diameter) were reported at Kealakekua and at Papaikou on Hawaii Island at about 1:08 p.m. Lihue Airport, Kauai, registered a gust of 55 m.p.h. from the south at 7:41 p.m. during a heavy thunderstorm, and a garage was overturned by strong winds at Kapaki, Kauai, at about the same time. Kahului, Maui, reported a gust of 53 m.p.h. from the southwest just after midnight on the 17th.

Several other weather events of interest occurred during the month.

On the 13th a funnel cloud was reported over Maalaea Bay, Maui, "moving from cloud to cloud" toward the West Maui Mountains.

On the 22d and 23d, heavy surffrom the southwest crashed onto the coast of western Hawaii, sweeping into several houses and beaching some small boats in the Puako-Kawaihae area during the morning of the 23d.

On the early morning of the 27th, thunderstorms dropped 2 to 4 inches of rain over Oahu, flooding several streets in Honolulu and covering two others in the Honolulu Airport area with mud. Heavy rain was also reported on Kauai, Molokai, and Maui.

An outbreak of funnel clouds occurred on Oahu on the 28th. Just after 9:00 a.m., three waterspouts, associated with heavy rainshowers, were reported off Maili Point in western Oahu within a period of several minutes. The largest of the three was described as roiling the sea surface about 1/4 mile offshore. At 10:05 a.m., funnel clouds were reported west of the Airport. Another waterspout was sighted off Waikiki Beach at about 11:00 a.m., and still another 5 miles southeast of the Honolulu Airport.

The month's stormy weather marked a continuation, begun in December, of the replacement of the trades by southwesterly winds, strong at times, and associated with storm tracks displaced so far south of their seasonal course that even the subtropical high pressure centers were often at or below Hawaii's latitude.

Although the several periods of heavy rains produced monthly totals up to twice normal in

#### HAWAII - JANUARY 1968

#### SPECIAL WEATHER - CONTINUED

many parts of the State, a few gages on Kauai and in east windward Maui had less than their monthly means. In the Hilo-Hamakua area,

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811 virtually all stations were well below normal for the month, and a few less than 50 percent of normal.

> Russell Dorr Acting Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Company   Comp																															JAWAI	I RY	1968
Company   Comp	Station	Total	1	2	3	4	5	6	7	0	0	10	11	10				10	17	10	10	00	01	00	00	- 04	0.5						
Part			_			- 1		-			3	10		12	10	14	15	10	17	10	19	20	21	44	23	24	25	26	2/	28	29	30	31
STATE STATE	BRYDESWOOD STA 985 A EAST LAWAI 934 A ELEELE 927 A HALAULA 1110 A	10.68 10.29 9.56 6.67	*	:	1.67 1.59 .81 .18	.06	.10		*	.25 .86 .06		Ť				*	.02	2.05	1.70 1.20	.09	Ť	* * * * * * * * * * * * * * * * * * * *		1.44 .73 1.15	.86 .47 1.00				*	*	2.95 2.19 2.73	1	т
Series Properties and the proper	HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIHA PC 1086 A	5.59 16.89 8.45	.43 .40		.75	.12	.90	2.40	*16	•72			* 10	•12	*	:	a .56	1.79	.28 1.37	• 33	•95		• 36	1.30	•30 •30			•20	4.42	2.00	1.90		•20
The part of the	KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 A	8.82 7.75 6.88		.91	•S2	.03	.37 .12 .13			1.05		.04	.03	.03				1.38 2.14 2.24	.91 .67				+25 e e	.58	•11 •06 •06		•07		:	*	2.48	.09	. 29
Separate 19	KILAUEA FIELO 17 1135 A KILAUEA POINT 1133 KOLO 1033	9 • 8 2 6 • 5 3 4 • 8 4	.12	.32	1.81	•06	.62 .10		:	1.49		.10	.08	.08	*	*	.37	1.87 .40 1.97	.41	•21			.06	.02	•06			1.66	2.16	1.12	2.96	•03	•26
Line   Marche   Mar	KOLOKO RES 1137 A KUKUIULA 935 A LIHUE VARIETY STA	9.59 8.11 8.82		.07	1.57 1.09 .21	*03	.48 .50			•06	.01		.10				.67	2.20 2.31 1.96	1.48	•06		* * 01	:	.31 1.96	•19 •16 •21				:	*	2 • 26 2 • 74 2 • 12	.05	
Modelle 19	LIHUE WB AIRPORT R MAKAHUENA POINT MAKAWELI 965 A MANA 1026	7.43 5.56 7.36 5.01	+02	.06	т	+02	.95 .19 .03	T •06				. 25			.01		2.50	2.43 1.67 .95 1.88	T •66 •06	.02			.49	1.22 .55 .84	.14 .07		•01		1.19 1.63	1.25			.26
PRINCE TIGES 1966  1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	MOLOAA I145 A NIU RIOGE 1035 N WAILUA OITCH 1051 A PH WAINIHA 1115	5.87 5.60 19.10 9.96	e •50	1.61 2.54 .22	.76 .42	•24	.13 .89		* •04	1.78			.03				.14	1.29 e 2.04 1.58	1.97 1.04 1.58	•26 •13				.10 1.52	•45 •30 •66	•08	•01	Ť	* .87	3.20	7.83	.05	
March   Marc	PUEHU RIOGE 1040 PUH1 1013 A RESERVOIR 6 1004 A WAHIAWA 930 A	5.61 9.27 11.53 9.73		1.50	•22 •38	•02	.03 .27 .31	•12 •		1.37	. 02	Ţ				*		1.85	.30 1.08 1.06	.03			*	.91 1.58 1.38	•12 •26	Ţ			:	2.70	2.92		9.30
Second Column   Second Colum	WAIAHI LOWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 A	9.30 11.59 5.32 9.35	.19	1.25			.84	1.53 .21		1.30							•21	2.10 1.65 2.00	1.48 .23 .95	.02 .16			•02	1.21 1.18	.23 .04 .16		•16		1.20	.90 1.70 2.66	1.70		•02
ALE FILL OF SAME AND ALE ALE ALE ALE ALE ALE ALE ALE ALE ALE					1.27	.03		*		.07					.05																		
BERTALA DUMPHAG STA  COCOMUL CLICKER (18 8)  8.09																																	
MELEMAD LATAKE 891 A 21.27   1.0   1	BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE	7.93 10.49 8.57		.27	•25 •02	•04	2.08	•07	•01							.03	.02	.02 .01 2.06	2.70 3.33 .12	•13 •07	•12 •23		• 34	.13	•10 •57	.30			3.85	.64	.01 3.65	.06	
H S PA EXP STATOT    6.97	HELEMANO INTAKE 881 A HOKULOA 725.2 A HONOLULU OBSERV 702.2	12.57 11.07 10.71	•	*	.06	*	* 28								.07	:	. 31	.05	e 3.63	* *	2.05 e .21		5.52		•36			*	4.65	* * 54	1.75 3.75	:	*
KAMPOH MAJKA 781 AARADMAPAT 841 A 7.80	H S P A EXP STA 707 KAHANA 883 A KAHUKU 912 A	6.97 18.90 7.88		.01 .69	.04	.01 .08	.81 * 1.29						* 04		T	* 08	.28	.10	2.35	.22 .01	.12		*	5.10		+25	• • • • • • • • • • • • • • • • • • • •		2.15	*65	5.20 2.63	.03	.12
EMPOCAMP 8 895  OR OLAW DATE 8	KANEOHE MAUKA 781 KANEOHE RANCH 838 A KAPALAMA 773 A	11.10	-	.01	-	•02	3.13	-24	•01	-	.03		10	- 01	.03	2.00	.02	.13	3.22	- 32	-			.29	-	-	• 2 4	-	2.18	*12 1*12 -	- 49	•06 -	•06
MAKAHA VALEY 800.1  MAKAHA WALEY 800.1  MAKAHA	KEMOO CAMP 8 85S A KOOLAU DAM 833 LUALUALE1 804	8 - 5 3		.58			6.18	.09		*	* T		.05	* T	.04 T	:	.23	2.37	.90	.49	.11	*		.02	* 28 T	•28	* T	*	1.72 1.30	.95	.06	.01	2.00
MANDA TUNNEL 2 716   12.88	MAKAHA KAI 796 MAKAHA VALLEY 800.1 MAKAPUU POINT 724	5.96 7.58 7.39		.06 .05	.06	•03	.03	.87	.02	•02					.08			.09	3.00 3.48 3.17	.03 1.50 .02	.02 .05	.18	.43			.32			1.10 .94 .85	.87	1.23 .79 .03	•01	•18
PALOLO VALLEY 718   11.20	MOANALUA 770 NUUANU RES 4 783 NUUANU RESERVOIR 5 775 A	12.88 9.56 11.32 11.14	.02	.64 .06	.08	3.68 .10 3.98	.82 2.11 .88 3.53	.18		.23	.01	*	.02			.83	.24	.19 1.86 .04	2.87 .04 2.55	•13 •10	•17 •04 •10	•42	• 30	.02	•05 •02 •03				3.21 2.80	.31	3.15		.02
PUNCHBOML CRATER 709 A 1 6.87	PALOLO VALLEY 718 PAUDA FLATS 784 PORTLOCK ROAO 724.4 PRI WAHIAWA 820.2 A	11.20 15.08 9.92 13.40	.02	1.26	.36	3.16 5.18	.70 1.30	.08	.02 .17	.06	.02 2.05		.04					2.44 2.20 2.92	.16 .14 .07	.24 .20	.02 .06 .04	.32 .57		.02 .06	•48 •08 •20	.19	+18	2.71	3.32	.20 .22	.02 2.42	• 02	•02
MAIAMAR 836 A 71.37 & 11.85 & 2 1.85 &	PUNCHBOWL CRATER 709 A ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713 A	6.87 I0.54 I1.07 8.07	.18	.09	.21	.01 .28	2.10 3.03 .85	.30	.02	•10		Т	т			.01		.02 .06 .02	2.47 2.84 2.25 1.95	•12 •24 •12 •13	.10 .25 .11		.31	.17		.24 .04	т		2.00 2.22 2.86	.55 .47 .62	.09 .31 .31 3.91		•31
**************************************	WAIAHOLE 837 A WAIALAE KAHALA 715 WAIALUA 847 A WAIANAE 798	13.51 6.86 8.52 6.41	T e	.01	.03 .65	•01	3.31 .14 3.20	.01	* T				.01	.14	.15	e T		.22 .06 .10	3.65 2.39 1.79 3.50	.02 .10 .01	.64 .09			*11 T		.60 .16 .81			.88	.66 .70	2 • 79 • 02 • 12		1.10
MAINTANAU 1/90 A 0.20 * 14 *09 *02 *17 * *70 * *	WALAWA 836 A WAIKANE 885 A WAIKIKI 717.2 WAILUPE RESERVOIR 170 A	21.37 12.13 6.03 6.32	*	• 50 T	1.85	e e .02	.08	.07	T *	4.00	:	*	.34		.05	:	.18	.35	* 1.72	.08 2.80	•12	* * T * *	•23 *	4.00 T	:		.89	*	2.32		3.45 .20	* T	1.95
	wA1MEA 892 A	7.65		• 02	.92	+11	3.44			1.30			T • 02		:	*	.05	Т	2.20	.03	.04 .22		٠		.03	1.21			:		1.80	T •01	

See Reference Notes Following Station Index

									Ι	ΟĀ	ΙL	Y ]	PR	EC	CIF	TI	Α	TI	10	1										H	AWALI IANUAR	Υ 1	1968
Continued	T	le	-				_								Day	of M	onth																
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	30	31
15LAND OF MOLOKAI																													ļ				
KALAUPAPA 563 KAUNAKAKA1 536 KEONFLFLE PENS 551 KUALAPUU 534 MAPULEHU 542	A A	10.67 9.16 7.22 8.55 10.90	* 04	.97 .15	.15		1.49 .18 .63 .37 1.31			.46 .32 .67 .46				•20	٠		•08	3.13	3.61	.07	.13 3.28 .49 1.57	2.59		2.54 .24 2.02	.04	.87 .09		1	*	• 1 •05		•05	.27 . .11 . .06 .
MAUNALOA 511 MOLOKAI AP 524 PUUOHOKU PANCH 542•1 mAIKOLU 540	A	6.73 - 11.27 16.90		.13 .15 2.25	.01 T .10	T •63	.35 .06	9 1.50 1.23	•	•72 2•39			•02		* •06	*	.09 .40 .41	3.30	2.82 3.95 .80		•32 •20 •10	:	**************************************		•52 9•55	•37		•20 1	.08	- 1 ,23		T ,,03	.08 .
1SLANO OF LANA1																																	
KANEPUU 690 KAUMALAPAU HARBOR 658 LANAI CITY 672 LANAIHALE 684 MAHANA 694	AAAA	6.82 4.48 7.29 4.43 6.78	.01	* 07 T *	.01	•15 •13	* 02 1.10 *	.18	* T *	* *	:	• 71	.10 .79	.07	.17	.05		*05	1.85	2.21 .12 .86	.16 .10 *	1:17	*10	.67 .01	T *	.14	.98	*.11 *	*	* 1 1.95		.	1.67
MALAUEA 676 WAIAKFAKUA 685	A	6.37 7.51	.20		*	*17	*	*	*	* •61	*	:	*06			*	.18	*	2.65	3+14	*	*	:	1.95	*	*	1.24	:		* 1	.87	•	.05 .
SLAND OF MAUL																																1	
AUWAH1-252 HALEAKALA B F S 434 HALEAKALA RANCH 432 HALEAKALA RS 338 HALEAKALA SUMMIT 338.4	A A A	9.15 4.52 4.05 8.28	.13	.03 T	.28 .22 .21	.32	.71 .76 1.24	.15	•05	. 02 T	_		Ţ	-	-	•07	_	_	.57 .70 2.38		•15 •24 1•08	•10 •14 •60		2.35		•08	•06 •07 T	•02		1.07	.04 _	.20	.04
HALIIMAILE 423 HAMAKUAPOKO 485 HANA 354 HANA AIRPORT		3.99 7.50 8.45 11.24	.25	.05 .09 .02	.14 .04 .46 .10	3.72	.21 2.64 * 3.90 1.70	.88	* •37 •09 •02	• 50 T			.06	T •02	٠	* 03	.07 .19 .11	2.48 T .03	.21 .32 .03 3.69 3.48	•15 •78	•22 •11	.21 .07	* T •12	.14 T	•01	•12	•03 •01	.08 T	.70	1.32 1.52 2.30	.01	.01 .04 T	.04 . .06 . .04 .
HANAHULI 281 HOLUA CABIN 259.5 HONOKOHAU 480		11.85	,33	.14	.41	* 54	*	.15		* 14	:	:		4.00		*	# #	# #	*	# #	#	* #		5.50	:	*		*		*	* 2	.35	7.50
HONOKOHUA 493 HONOMANU GULCH 341 KAHOMA INTAKE 374	A A	6.89 7.20 7.97	*	*	•06	*14	4.58	:	*	.43	:	:	***	.03 *	:	*	.03 *	:	2.05	:	.62 * *	*	*	2.97	*	* *	:	•10		:		• 02	7.20
KAHULUI W8 AP KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KEAHUA 410	R A	4.31 7.72 9.65 6.89 4.11	* .21 * T	.07	.45	.08 9 1.39 8	T *4.40 *	.07 * .58 *	T • 04 • 21	.96		.01 #	•	*	T •	* 55 * T	* •28 •23	.28	.56 .28 .59		.36 *	*14 **		* 3*96 •11	*	.50	* •02 *	T :	.04	.79 .78 .1.57	.74	* .	.02 . 7.72 . .02 . *
KEANAE 346 KEAWAKAPU BEACH 260.2 KIMEI 311 KIPAMULU 258 KULA HEIGHTS 323.2	А	16.30 5.66 3.89 12.17 3.79	*	e .95	• T •20	• 97	1.72	• 17	*	*		٠	* 01 T	٠	• • • • • • • • • • • • • • • • • • • •		*		3.91 1.43 3.82 1.02	+10	.07 .18 1.33	.28 .33 .33		*	•	•	*	•		1.36 * 1 2.53 1.49	* •05 •10	* )	6.30 . .01 . .01 .
KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372	A	6.81 4.20 6.00 5.80		*		•01	.09	•01					.07	.02	.03		*		3.10 1.12 *	.04	.46 .47		•01	.05	•01	.01	•02	•01 *		1.44	.45 .05 #		.06 . 6.00 .
LUPI UPPER 442  MAHINAHINA 466  NAKALELE -ELD 60-497  OLINOA 332  OLOWALU 296	AAAA	7.15 5.98 3.83 5.85	:	.20	.48 .28	•26 *	6	.04	*	*03 1+29 +11	e T	* T	.04 * .06	e T	:	.19	*07		2.65 .94 1.70	•21		1.38 .45 1.55	*	.07 3.10	* • • • • • • • • • • • • • • • • • • •	.09	* •08 •02	.03	:	1.20	.06 1.51	.01	.01
OLOWALU GULCH 377  PAAKEA 350  PAIA 406	А	7.20 14.35 5.92	.87 .05	.37	1.09	1.17	7.40	.58 .33	.38	٠	*		.01	•	٠	* •59	.11	*	* •65 •69	.16	.70	.28	•	•	•	•	•01	•	.10	.98 1.85		*	.01
PANILE1HULU 259.2 PAUWELA 490 POHAKEA BRIOGE 307.2	А	11.43 8.88 5.25	*	1.36	•13	•70	3.60	:	• 07	• 90	٠	•	• •03 •07	•	*		.08	*	.32 1.56	•12 •05	9.30 .73	* •72	*	2.13	*	*	** *16 *01	*	:	2.00	* •02	*	.01
POLIPOLI SPRINGS 267-2 PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNENF 396 SPRFCKELSVILLE 400.2	A A	15.65 14.80 13.60 5.12 4.98	.01		1.61 * T	• • • • • • • • • • • • • • • • • • • •	.16	.16	.05 .26	*	:	.15 e	e e T			*	*	*	5.82 * .87 .52	.20	.98 1.43	* * •65 •25	*	:	: '	** 95	9	:		1.61 1.36	*	* 1	3.12 . 4.80 . 3.60 . .03 .
TWIN GATES 261.3 UKULELE 333 UKUMEHAME 301 ULUPALAKUA RANCH 250 WAHIKULI 364	AAAA	1.40 5.84 6.74 5.82 4.72	.02	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	1.40	* * * * *26	.02 .02	:	*	:	*	.03	•16	*	* •30	e *	:	1.80 2.10 1.10	.14	.50	1.86 .51		.08	:	.12	* * •07	:		1.70	.08 2.25	:	5.84
WAIFHU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI 0AM 336 WAIKAPU 390	AA	8.63 8.86 15.50 11.85 5.95	:	* 83	.12 .30 1.21	3.06	.34 .43 .42	*	•36 •40 •	n •13	* T	٠	.04	e T		:	* 11	e T	2.00 3.50 8 .69	.10	.90	2.32 1.32 * .23 1.12	*12		* T	.06	T T •	*				.01	5.50 .
WAILUXU 392 WAIOPAI RANCH 256	A	5.99	T *	T *	.02		.19	.06 #	T	.01 .35			•01		T	.01		*	1.63			1.16		.01 .67		.02	.04				.51	.01	
# * * 15LAND OF HAWAII													,																				
AHUA UMI 75 AWINI 182+1 FAST HONOKANE 1838	A A	4.20 8.48 11.44								* 34			*		*	*	*		.05	1.68							*	* 2•00	:		.79	* 1	4.20 .
HAINA 214 HAKALAU 142 HALFMAUMAU 52		3.37 5.40	.29	.30		1.05	1.34	.47	.04	•01						.01	.01	.01		•11							•03	.28 .05	.13	.97 .30		.04	
HALEPOHAKU 117 HALEPOHAKU 111 HAAA11 VOLCNS NP HQ 54 HAWI 168	A	3.86 - 15.23 8.52	.46	.20	.68	.44	1,91	.23	.18	T .02		:	* - T	* - T	* T	*	• 03	# - T			1.83	.18		* * T	-	-	.28	1.57	1.40			e	4.48
HILO WS AIRPORT HOLUALDA 70	R	4.77 8.00	.06	.28		1.14	.77		*	• 02			• 17			T *	.09	Υ *	.17	*11	9			.09		Ţ	•01	•92	.60	.09	* 8	•00	T :
HOLUALOA 8EACH 68 HONAUNAU 27 HONOHINA 137	A	4.11 5.75 6.84	.01 .31	.03	.37	.02 2 • 15	.02	.01 1.75	•01							•03	.07	.07	1.45	1.96	2.15 1.54 .02	•02	•01	.02	•11	•01	•12 •07	•44	.30	.29 1 .31	.05	.01	.02
HONOKANE 181.1 HONOMU MAUKA 136 HONUAULA 71	A	9.19 7.66 1.00	* *39	.57	•27 •91	.87 1.60	.14 1.86	.95	10	#	0	٠					.13	.09	.06	2 • 28	*07						•09	2.34	.15	.55	.78 .01	•00	. :
HUALALAI 72 HUEHUE 92A KAALA 1K1 12	A	6.20	:		•	• 02	.16		• 21	-	*				*	•	•	-	• 27	. 81	3.30	.05	• 06	:	• 06	- T		1.85	*	3.10	- 1	.05 T	: :
KAAWALQA 29 KAINALIU 738 KAIAPANA NO 1 67•8 KAMAQA NO 2 5	A	5.38 5.96 16.55 9.32	.04	.02 .01 .05 3.44	.01		2.68	.07 .01			+12 #	*	۰	۰	١.	.03	۰	•03 *	*2 r	1+12	2.00	т		.31	•03 •12	•06	•08 •12	1.91 2.41	.07	.50 6.10	.95		T

See Relerence Notes Following Station Index
- 6 -

	~ · · · · ·									-	723		± .	r 1/	٠.		11	Δ.	11,	711	•											1.1.5		
	Continued				_																											JANUA		1968
	Station		Total	<u></u>			Ι.	_									of M	onth																
	AMUELA 192.2		4.39	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
K.	AMUELA AIRPORT APAPALA RANCH 36 APOMO LANOING 935 AUMANA 88.1	A	3.39 11.22 9.12 7.01	1 * * * * * * * * * * * * * * * * * * *	•77 * •36	.14 .08 *	.02 e		.02 .01 *	T .	T •10	7	т	. 30	.14	T e	.80	.30	.20	.01	1.24 .88 *	.76 .72 2.11 .66	T *	T # *	.22	.01	T a	•12 •20 •	1.27	.18 .10 .06	.88 .49 7.85 .34	.04 T	.02	7 . 30
KI KI	AWAINUI LOWER 193 EAAU 92 EALAKEKUA 26.2 HENA 181.2 EHENA RESERVOIR 176.1	A	6.73 7.66 5.75 11.42 9.35	.17	.20 7	.83 .01			* 35 • 09 *	.15	* * * * * * * * * * * * * * * * * * * *			e e +02	.78 .01						.05 1.12 e				* * * * * * * * * * * * * * * * * * * *	.01 .01	.16	.05 .11	1.80 .36 1.12	1.49	* *56 *57	.02 .37 		1.42 .
K (	IOLAKAA A ? F 6 IPA 89•2 DHALA 179A DHALA MAULILI 176 DHALA MISSION 175•1	A A A	7.63 7.61 8.60 7.82	.37	- •23 • T	1.45 .13 .43	1.39	.02	1.15	*01 *	T •08 •12	-	-	.04 .09	•	-	-	.01	Ŧ	.40	2.57	•12 1•43 1•49 1•33	- * *	•	- •17 •11	•04	-	- •05 •03	- -21 -69 1.09	-04 e	.45	- •07 1•00 1•19 •09	- •01 •01	.17 .05 .
K (	DIAWE LOWER 196 DNA AIRPORT 68.3 UKAIAU 222 UKUIHAELE HIC 199 UKUIHAELE MILL 206	A	4.39 3.87 4.38 5.94 4.75	.01	•	e .15 .88 .31	1.58	.10	.13 .59 .18	.08 .15	7 •08 •48	•	•	*	.30	•	•03	•	•	Ť	.73 .09 .42	1.60 1.98 .18 .27	* T •02	•06	*	•	•	• 14 • 02 • 48 • 05	•80 •05 T •54 •35	* 22 •06 •28	2.25	.02 .01 .02 2.25	•	* . .02 . .12 .
KI KI	JLANI CAMP 79 JLANI MAUKA 76 JLANI SCHOOL SITE 78 ANIHAU 68 C ANUKA 2	A A	6.73 2.65 6.50 6.23 6.27	*15	.08 e	.84 .74 .18		.99 .36 .20	•	•13 •	* *26	* 02				4.00	+02 *		*	.45 .25	1.08	1.06 .14 .10 1.78 1.42	•11		.04	* •21 •04	# T	•08 •30 •	.51 .25 	.17 2.50 .28	.94 .40 .52	.05 e .09 2.16	•03 •	.03 .
MA MI MI	AUNA KÉA BEACH AUNA LOA SLOPE OBS LOOLE HOLVALOA 68.1 LOOLE PEN 147.1 DAULA 18	A	4.46 1.61 5.92 5.31 14.84	:	*	.04 *	•03 •40	.38	* 02	:	:	:	*	:	:		:	:	7	.01 .11 1.70	•17	.94 .34 1.65 1.90	:		:	.06 	*	.01	2.16 .02 1.69	.20 .04	.86 .64	•01 2•31 e		1.32 .
NA NA	OUNTAIN VIEW 91 NALEHU 14 NPOOPOO 28 NULU FOREST 38.6 NULII 179	A A	12.49 11.40 5.42 21.21 7.88	.25 .1I .04	.02	1.11 T .14 .20	•03 •	2.85 .06 * 2.05 .06	.58	•25 •49 •	T •22 T •12		•01	•01			•01	.12		1.47	.08 .29 	4.69	.04 .41	* 14	.12 2.96 .04	.04 e	*°1 * T	1.06	2.47		2.87 e 4.17	.08 .72 2.13 .04 2.16	7 • •11 •01	* * * T * *
OF PA	OKALA 223 PIHIHALE 2 74.1 RCHID LANO EST 91.5 AAUHAU 217 AAUILO 221	A	5.18 5.63 9.17 3.46 2.83	.05 .04 e	.04	.01 .60		.11 5.96 .08	08 .34	.01 .01 .07	T *05		•		. 82		*	.01	7	1.55	T •95 • •09 •03	.05 .01 1.72 .07	•14 • •02	.04	,11	•02	*11	«05 «84 «	T •14 •67 •29 •05		1.50 1.08 e .97	.02 .01 .01	.06 e .16	.01 . .28 . 
PI	MHALA 21 AHOA 65 AKAO 37 APAIKOU 144A APAIKOU MAUKA 140.1	A	17.24 14.75 8.75 5.53 7.47	.11 .36	.12 * .23	.65		.13 3.35 1.38 1.14	.44 .27 .51 1.36	•48 •12 •	٠	•	*		•		•	.02	.01 e .02	•12 •22 •02	.01 .19	1.95 1.38 e .09	*06 *16 * T	•03 #		•15 •07	.03 e	1.03 .22 e .06	3.36 .62 e	1.46 4.71 * .02 .03		.20 .06 .01	•04 #	8.75
P I	PPEKEO MAKAI 144 IHONUA 89 DHAKULOA 107 JAKO 95A JU KIHE 120	A A A	4.73 12.00 3.63 4.05 3.61	.29 *	*	•26 •	1.12	.04	.30 .41 .02	.01							.01		.10	.01	1.01	*05 *1*14				•12	:	.06 e .05	.17 .13 1.49	.04	.30 * 1.32	.03 1.90		2.00 .
PL PL	JU LAAU 102.1 JU LEHUA 73 JU MALI 113 JUOKUMAU 167 JU OO 82	A A A	3.15 4.40 2.96 9.96 4.00	* * * * * * * * * * * * * * * * * * * *	.13	* * •22 •24	e e e +45 +85	* * *27 *25	e e e	* * * *	.75	*	*	* * *	• • • • •	:	*		:	* * * • 0 5	* * * 3.52	* * 1.73 .20	* * *		* * * * * * * * * * * * * * * * * * * *	:	:	* * *01 *03	* * * * * * * * * * * * * * * * * * *	* * * 1.07	.18	* * * * * * * * * * * * * * * * * * *		3.15 . 4.40 . 2.96 . .03 .
SA SC UA	JU WAAWAA 94+1 ADDLE ROAO 1 84 DUTH POINT CORRAL 3 11KOA 118 POLU POINT USCG 159+2	A A	3.19 11.23 8.37 4.81 6.59	* * *	* •43	1.49	1.33	9.20	.02 e e	:	• • •20	.02		*	1.07	.14			:	.26	.10 .14 2.86	.46 .41 .28 .50	.70 .30	* 1•12	:	• • • 03		*11		3.90 .17	.78 1.79	.40 2.08	.01	* .
WA	NIAKEA SCO 88.2		7.04	«21	.17	.88	1.00	1.82	.66										•03		• 02	.73	7					•02	. 45	•54	•42	•09		٠

### SUPPLEMENTAL DATA

			Wi (Speed -		)		Relati	ve hum	idity ave	rages		Num	ber of d	lays with	precip	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 Am	TH MERI	OIAN TI 2 RM	ME 8 RM	Trace	.01–.09	.1049	5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO. HAWAII, WR AIRPORT	18	1.6	6.7	30	SE	20	83	77	71	82	5	3	5	3	1	0	17	36	6.8
HONOLULU, OAHU, WR ATRRORT	11	1.0	6.9	43	N	16	82	81	65	75	7	4	5	1	0	2	19	65	6.0
KAHULUI, MAUI. WR AIRRORT	14	1.7	9.7	34	SW	17+	90	89	72	87	8	3	4	3	1	0	19	58	6.2
LIHUE, KAUAI, WB AIRPORT	23	1.9	10.5	32	SW	16	90	89	70	84	5	6	2	1	1	2	17	55	5.3

									ש	AII	LI	11	-11^1	PE			UK														ANUA	RY	1968
Station		- I	2	3	4	5	6	7	8	9	10	11	12	13		-	Of Mo		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Averag
		-	-					-									-																-
ISLANO OF KAUAI																																	
KANALOHULUHULU 1075	MAX	65	64 56	63	66 52	65 53	66	66 53	65 45	65	58	66 51	60 48	60	66 45	65	62	61 53	62 54	63	64 55	64	65 59	6.5 5.5	63	63	62	60 48	62	58 52	65 47	65 51	63.4
KILAUEA POINT 1133	MAX	76 67	78 68	77	78 65	77	79	78 67	75 65	82	80	72	80	78	76 66	79	81	81	85	82 71	88	88	86	80	80	76 64	79	78	80	,,	78 63		79.6
LIHUE W8 AIRPORT	MAX	74	76 69	76	75 67	76 65	76 65	75	75 60	76 57	77	75 58	78 56	75 59	76 57	78 63	77	78 63	79 65	78 68	8 I 7 3	78 74	77	77	74 57	76 57	77	76 64	76	76 57	75 57	74 58	76.4
MAKAHUENA POINT	MAX	78 72	78 71	78	79	78	79	80	80	80	81	79 61	80	80	82	81	84	<b>7</b> 9	81	80	83	84 75	83	82	82	79	79	82	76 66	78 62	81	82	80.3
MANA 1026	MAX	78	78 63	80	80	80	80	80	81	80	79	77	76 62	80 62	75 63	79 64	81	78 66	78 62	81 66	81 65	81	82 63	80 70	77 57	77 62		80	77 60	78 62	78 64	7 <b>7</b> 62	78.9
NIU RIDGE 1035	MAX M1N	78 59	79 60	70 58	80	71 61	78 62	79 63	79 58	78 59	78 60	<b>7</b> 5	75 61	75 60	74 58	78 58	77	78 62	78 63	78 65	79 64	80 65	79	76 64	70 59	70	75	72 61	71	70 60	70 59	75 62	75.6
WAIAHI LOWER 1054	MAX MIN	73	74 65	76 62	75 64	73 62	76 57	77 58	78 54	78 52	78 54	77 53	78 50	78 55	78 53	77 59		77 61	80 61	79 66	8 I 7 1	81	77	78 62	78 52	76 51		79 63	79	79 53	77 51	75 53	77.3 58.5
15LANO OF OAHU																																	
EWA PLANTATION 741	MAX	76 65	79 67	79 65	81 65	77 63	83 62	81 63	80 61	78 56	79 57	8 O 6 O	80 58	78 60	80 57	81 58	74 60	80 63		82 67	8 I 67	80 71	81 72	76 67	79 60			71 61	79 63	80 58	80 58	8 I 5 7	79.2 62.0
HONOLULU W8AP 703	MAX	77	83 70	79 70	80 69	80 67	82 67	79 65	80 64	80 59	82 59	80 64	8 2 6 2	78 62	81 61	80 62	76	81 68	80 69	82 71	8 I 72	81 75	83 73	78 69	80 67		80	75 67	80 67	81 62	79 62	79 60	80.0
HONOLULU SUBSTA 704	MAX	76 72	78 68	77 71	78 69	77 69	78 68	76 69	76 68	76 64	77 66	76 67	78 68	76 66	78 65	79 67	75 64	79 71	79 67	80 73	80 69	81 74	80	78 70	77 66	75 66		74 65	78 67	78 63	77 64	7 <b>7</b> 65	77.5 67.8
KAHUKU 912	MAX M1N		83 68	83	68	77 68			78 65	78 58	78 60	78 62	78 58			81 59	80 60	77 64	80 62	80 67			87 64	87 66	78 61	78 57				82 60	78 62	78 58	62.4
KANEOHE MAUKA 781	MAX	76 70	<b>7</b> 5	78 65	75 69	7 <b>7</b>	76 65	78 66	77 66	77 66	76 65	72 63	78 65	78 63	75 64	76 66		75 72	78 68	77 68	78 72	79 72	78 73	80 69	76 63	<b>7</b> 7		81 63	72 65	79 61	7 <sub>2</sub>	71 62	76.5 66.3
MAKAPUU POINT 724	MAX	76 68	73 67	75 69	74 67	73 68	75 68	75 66	74 67	76 66	74 64	76 68	75 67	76 64	74 67	77 69		72 66	78 68	77 68	78 72	76 70	78 67	78 71	74 67	75 65		77 67	71 66	76 69	75 66	73 63	75.3 67.3
OPAEULA 870	MAX					8 I 68			80 55	77 55	75 56	76 56			75 56	78 58		72 61	78 58	76 64		78 67	76 68	78 66	72 58	75 56			78 60	77 58	75 58	76 56	
PRI wAHIAWA 820.2	MAX MIN	78 68	79 58	78 64	76 63	79 63	79 63	79 62	80 60	77 55	79 54	76 57	77 54	76 58	74 56	8 O 5 5		81 62	77 65	77 67	80 70	76 69	81	81 64	74 60	78		82 57	79 61	80 57	75 56	75 56	78.2 60.3
WAIALUA 847	MAX M1N	80	79 61	79 62	79 62	78 62	78 62	76 62	79 62	77 56	78 56	77 60	76 57	80 58	75 59	78 56		78 64	80 63	80 68	85 71	86 71	86 73	84 65	76 66	71 56		78 60	76 64	76 64	81 59	77 57	78.6 61.6
WAIKIKI 717.2	MAX M1N	81 70	76 70	8 2 6 9	82 69	83 70	82	84	84 61	80 56	79 58	80 64	81	81	82 59	82		76 65	82 68	82 68	84 71	82 71	83 74	83 68	82 62	81 60		82 64	73 65	81 56	8 1 5 7	81 56	81.2
15LAND OF MOLOKAI																																	
MOLOKAI AP 524	MAX	78 67	75 70	7 <b>7</b> 65	75 67	77 67	76 63	77 65	75 65	77 58	75 60	76 65		78 65	77 65	77 61	80 69		79 71	77 69			77					79 67		8 I 6 2	76 64	75 62	76.7 65.5
ISLANO OF LANAI																																	
LANA1 CITY 672	MAX MIN	76 59	71 62	74 60	72 64	75 63	<b>7</b> 2	70 63	73 61	71 57	72 60	73 60	73 61																71 57				
ISLANO OF MAUI																																	
HALEAKALA RS 338	MAX MIN	66 49	65 48	57	52 41	59 45	57 42	55 39	59 39	64	62 41	60	60 47	60	57 36	58 36	60	57 47	55 46	60 48	58 50	64 51	68	63 42	63	62	5 8 4 2	57 41	54 43	56 38	59 37	57 41	59.4 42.6
HALEAKALA SUMMIT 338.4	MAX																																
HANA AIRPORT	MAX				75 69	76 67		76 63				79 62	80	80 57	79 64	79 69	80 66	77 68	80 65	84 70	80 70	8 2 6 6	83 65	84 65	82 66	76 62	78 65	80 67	78 65	80 61	77 58	77 61	78.8 64.6
KAHULUI WB AP	MAX M1N	76 69	79 69	75 67		78 66	75 65	77 64	78 58	75 56	76 55		79 63		81 58		79 64	79 68	80 68	79 70	78 72		80 66	79 63	76 65			71 63		77 57	75 57	76 64	77.8 63.8
KAILUA 446	MAX			75 62	71 61		74 59		75 56	75 55	72 55		81 55	8 I 5 5	76 58	77 58	78 61		8 l 6 l	8 2 6 1	8 2 6 2	8 2 6 2	82 61					81 58	82 59	8 2 5 8	8 <i>2</i> 58	7 <b>7</b> 58	78.4 59.1
KULA SANATORIUM 267	MIN	71 56		72 53	67 54		67 57	69 54	70 52	68 48	63 47		67 55			72 53	74 55	69 61		73 61	6.8 6.2	77 63	78 57	72	73 56	67 57		72 58	68 58	73 53	67 48	66 49	69.4 55.0
LAHAINA 361	MAX .	84 67	<b>7</b> 9	79 64	81 64	8 2 6 7		8 <i>2</i> 6 <b>7</b>	80 61	82 60			79 63				83 64			80 70		78 70	80 68	80 65	80 67			80 65		80 62	80 60	80 61	79.9 64.8
WAILUKU 392	MAX	81 66	77 65	80 65	77 63	80 64	79 63	7 9 6 2	79 61	79 60	77 54	79 57	81 58	81 59	82 59	81 57	85 59	81	80 63	78 67	78 68	78 69	83 63	83	83 62	77 59	81	83	74 61	80 58	80 55	79 58	79.8 61.3

DAILY	<b>TEMPER</b>	AT URES
-------	---------------	---------

Continued									D.	ΑIJ	LY	TF	EM	PE	RA	T	UR	ES													AII	RY	1968
			_												1	Day (	Of Mo	onth															erage
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
* * *																																	
ISLAND OF HAWALL																																	
HAINA 214	MAX	75 66	77 64	77 61	73 62	75 6 I	74 59	75 59	75 58	7 8 5 7	75 58	78 56	78 63	77 62	79 60	78 58	8 I 6 l	78 70	79 63	79 65	76 62	8 I 6 3	79 63	80 62	80	79 63	77 62	75 61	75 61	75 60	78 60	78 60	77.2 61.3
HAWAII VOLCNS NP HQ 54	MAX	61 59	63 51	62 52	63 53	64 54	67 54	66 46	67 45		68 45	68 49	69 46	68 48	67 48	68 47	66 47	64 58	63 53	63 57	64 54	63 49	71 52	69 49	69 47	68 49	64 49	65 49	61 49	62 47	68 44	67 45	65.6 49.8
HILO WB AIRPORT	MAX M1N	78 67	78 65	79 68	80 69	74 67	79 64	78 61	79 60	78 60	82 61	81 61	82 61	80 63	83 65	8 2 6 7	84 70	81 69	82 67	81 69	85 68	87 64	84 67	84 65	81 64	68 81	80 69	78 70	78 68	79 63	80 61	80 61	80.6 65.2
KAINALIU 738	MAX	78 63	75 63	75 60	75 61	77 63	76 61	78 58	75 56	74 56	79 54	75 58	75 57	78 55	77 57	77 57	77 61	76 65	72 63	80 64	78 63	79 62	78 63	79 64	77 60	76 64	76 63	77 63	73 61	78 55	73 54	74 57	76.4 60.0
KAMUELA 192.2	MAX	67 56	67 58	71 57	67 56	70 56	66 49	76 52	69 52	74 44	70 47	69 50	67 50	70 53	74 55	76 44	76 45	77 48	67 60	72 60	75 55	78 56	78 56	75 57	79 50	75 53	75 58	74 53	70 56	72 53	71 44	72 47	72.2 52.6
KAMUELA AIRPORT	MAX	69 49	69 49	71 54	69 50	70 55	6 <b>9</b> 50	71 50	68 48	72 49	68 50	67 49	67 54	70 53	72 49	75 50	74 45	75 45	69 49	70 60	72 55	76 56	74 61	73 50	74 49	71 48	70 48	72 55	68 54	72 58	69 45	71 41	70.9 50.9
KEAAU 92	MAX	82 63	8 2 6 3	82 63	77 65	76 64	79 58	79 58	79 58	80 58	60	82 60	80 58	81 61	81 61	81 61	82 67	80 70	81 65	85 65	85 62	85 62	85 62	84 63	82 63	7.8 6.5	80 65	80 62	80 62	80 62	81 60	78 60	80.9 62.1
KEALAKEKUA 26.2	MAX	79 62	74 62	78 61	74 60	75 63	78 61	77 58	78 59	76 58	74 55	78 59	76 59	79 54	78 58	78 59	79 62	76 66	72 64	80 65	78 64	79 64	80 65	80 63	60	63	75 65	79 64	74 61	78 58	75 57	75 59	77.0
KOHALA MISSION 175.I	MAX M1N	75 68	75 67	77 64	75 65	75 65	75 64	78 63	76 64	77 60	73 60	78 62	77 64	78 65	78 63	77 63	82 63	77 64	76 67	82 68	82 67	79 65	81 66	79 65	79 63	77 64	79 65	79 65	75 65	78 64	78 60	77 61	77.5
KONA AIRPORT 68.3	MAX M1N	85 65	85 65	82 62	83 62	84 63	80 66	83 65	82 62	83 64	83 62	82 62	80 65	83 65	81 65	83 64	83 65	83 65	81 69	82 68	83 64	81	83 65	85 65	81 63	81 68	80 68	81 68	63	77 61	81 61	81 61	82.0
KULAN1 CAMP 79	MIN	63 43	59 45	58 44		60 45	59 42	61 39	54 36	66 36	65 35	68 38	66 38	61 38	63 38	64 38	68 48	60 52	66 46	68 54	68 50	73 50	75 44	68 44	64 42	70 55	62 50		60 50	60 44	62 36	64 40	64.0
MAUNA KEA BEACH	MAX	83 70	84 70	86 71	86 70	84 68	85 65	84 64	87 63	87 61	63	81 66	81 65	82 64	8 2 6 3	81 64	83 66	8 I 6 9	80 68	84 68	87 69	85 70	85 69	85 67	83 66	81 68	79 67	84 67	81 67	82 65	80 61	80 62	83.0
MAUNA LOA SLOPE OBS	WIN	50 35	48 35	47 31	47 34	42 34	41 32	46 29	52 31	53 33	48 33	53 37	53 35	55 37	52 36	57 34		50 36	50 37	48 36	53 35	5 2 3 3	51 34	51 36	51 35	50 36	52 35	54 35	37 32	39 25	29	29	49.0
MOUNTAIN VIEW 91	MIN	72 61	71 57	71 59	69	70 58	67 57	73 54	72 51	73 50	74 52	77 52	76 53	77 53	76 55	76 59	75 59	76 63	77 59	80 59	79 61	77 56	85 59	78 57	78 56	73 55	73 61	73 61	73 60	71 59	76 53	75 53	74.6 56.8
NAALEHU 14	MAX	78 61	78 61	78 61	76 66	78 66	78 66	78 62	78 62	78 62	75 56	79 59	78 59	78 59	81 60	81 60	78 69	75 67	78 68	80 68	80 68	80 66	80 66	79 64	79 62	77 66	71 66	71 66	78 66	78 59	78 62	77 62	77.8 63.4
OOKALA 223	MAX MIN	67	76 66	80 64	76 65	78 66	75 68	75 66	75 65	76 62	75 62	79 63	81 64			82 65	80 66	81 66	76 67	84 68	78 67	83 67	83 67	80 68	80 65	80 64	80 65	80 68	75 65	77 64	77 63	63	78.4 65.4
OPIHIHALE 2 24.I	MAX	75 60	72 57	72 57	75 57	74 59	76 55	74 54	73 55	71 55	75 56	75 53	77 53	76 55	75 53	78 53	76 58	77 62	79 61	80 62	8 I 6 1	77 60	77 60	76 55	74 55	76 63	77 60	74 59	74 55	72 52	74 52	73 54	75.3 56.8
PAHALA 21	MAX	78 62	77 62	77 63	79 63	78 63	75 62	77 60	78 61	77 61	74 58	77 57	79 57	80 56	79 58	78 60	78 63	76 66	80 64	79 65	76 65	76 61	80 63	78 60	77 60	75 60	72 60	73 64	73 63	73 58	77 57	76 58	76.8 61.0
UPOLU POINT USCG 159.2	MAX	78 72		77 66	79 66	79 67	76 69	78 66	78 67	79 61	78 65	80 67	78 69	80 66	81 66	81 65		80 72	78 69	82 68	82 69	81 70	83 70	83 68	83 67	83 69	80 67	81 68	81 67	81 66	81 66	81 66	80.1 67.4

### **EVAPORATION AND WIND**

																Day	Of M	onth															al g.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * ISLAND OF KAUAI																																	
LIHUE W8 AIRPORT	EVAP WIND MAX MIN	147	167	109	161	138	66 79	59 83	6.5	83	81 82	99 78	75 82	94 79	87 79	50 82	104 82	177	112	186	*	395	133	45 80	55 88	58 79	60 79	52 76	48 79	62	63 82	52 80	6.40 3066 79.8 60.6
1 SLAND OF CAHU																																	
HONOLULU OBSERV 702.2	EVAP WIND MAX MIN	54 83	75	80	38	32 81	20 78	19	23 83	14 82	12 81	22 81	·11 13 86 63	19	.10 10 84 61	27 84	28 85		23 87	17 87	25 90	57	89	18	18 89	13 86	12 84			17	87	83	787
* * * ISLAND OF HAWAII																																	
HILO WE AIRPORT	EVAP WIND MAX MIN	35 78	55 77	78	40	23 71	81 82		.23 87 81 58		62 82	46 80	47 84	42 77	77 84	112		79 78	47	70 81	131 84	90 86	80	56 82	75 77	41 76	50 79	94 75	63	81	84 84	57 85	3.83 2243 80.0 63.5

	NO.	E ÷	JDE	ATION	T	ERVA ME A	ND			NO.	NO	SE ‡	UDE	ION	T	SERVA IME A TABLE	ND	
STATION	INDEX NO DIVISION	DRAINAGE	LONGITUDE	ELEVATI		EVAP.	-	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	$\vdash$	PRECIP.	-	OBSERVER
I LAND UT KAUAT			1						ISLAND OF LANA!			1						
ACERANGER PESV, 089 ANAHOLA IIII BRYOCEWOOD SIA 985 YAST LAWAI 934 LEELE 927 HALAULA IIII HALEMANAHO 1006 HANALEI TUNNEL 1053	A 0470 02 KOLOA A 0935 01 KAHAIHAU	2 21 5 2 21 5 2 22 0 2 21 5	19   159   19 16   159   32 15   159   30 16   159   22	1610 116 720 440 350 163 253 490 1218		7 s 7 s 7 s 6 A 7 A 8 A	¢ ¢	MC BRYDE SUGAR CO. LINUE PLANTATION CO MC BRYDE SUG CO LTO MC BRYDE SUG CO LTD LINUE PLANTATION MC BRYDE SUG CO LTD LINUE PLIN CO LTO GROVE FARM CO LTO LINUE PLIN CO LID LINUE PLIN CO LID	RAUMALAPAU HARBOR 658 LANAT CITY 672 LANAIHALE 684 MAHANA 694 MALAUEA 676	5301 5704 6012	01 LAMAINA 01 LAMAINA 01 LAMAINA 01 LAMAINA	1 20 53 1 20 47 1 20 50 1 20 49 1 20 53 1 20 46 1 20 47	157 00 156 55 156 53	1640 30 1620 3370 1430 1135 2040	7A	W I 9 A 7 A # I MO W I # M	0000	DOLE COMPANY OOLE COMPANY DOLE COMPANY DOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
HURTPO 345 ILITULA INFAKE 1050 INFAKE MAIMHAR PC 108 RALHHIWAL RES 1131 RAMALOHULUHUU 1075 RAPEA RESERVOIP 1 92 RAPAA STABLES 1104 REALIA 1112 KI KAHA 944 KILAUEA 1134	2161 03 WAIMEA 2222 02 THUE 368 2227 04 HANAULT	2 22 0 1 22 0 1 22 1 3 22 0	9   159 41  2   159 28  9   159 34  1   159 26  8   159 40  8   159 22	1070 690 400 3630 800 175		7 A W1. 7 A B A 7 A 7 A 8 A	· ·	KEKAMA SUGAR CO LTD  LIMUE PLIM CO LTO  MC 8PYDE SUG CO LTD  KILAUEA SUG PLIN CO KANALUHULUHULU K. S.  LIMUE PLANTATION LIMUE PLIM CO LTO LIMUE PLIM CO LTO LIMUE PLIN CO LTO KYEAMA SUGAR CO LTO	FIELO 46 474  HAELAAU 477  HALEAKALA B E S 434  HALEAKALA RANCH 432  HALEAKALA RS 338  HALEAKALA SUMMIT 338,4	0541 0790 0995 0999 1004 1008 1016		2 20 37 4 20 59 4 20 57 1 20 51 1 20 50 2 20 46 2 20 43 1 20 55 1 20 55	156 15 156 16 156 17 156 21	2060 T050 2980 2100 1850 7030 9960 690 1070 320	8 A 8 A	7A 6A 8A 8A 5A	K K K	ULUPALANUA RANCH MAUI PINEAPPLE COM- MAUI PINEAPPLE CUMPANY U OF MAMAII EXP STA MALEARALA RANCH CO HALEARALA MAI PARK U OF MICH MT HAALA OBSY PHIL SCOTT MAUI PINEAPPLE CO- HAWAIIAM COM + SUG CO
KILAUEA POINT 1135 KILAUEA POINT 1135 KITANO 1037-1 AOLO 1033 KOLOA MAUKA 996 AOLUKO PES 1137 KUKJULA 935 LIHUE VARIETY STA LIHUE VARIETY STA LIHUE 1020	4568 01 HANALE1 4568 01 HANALE1 4650 03 WAIMEA 4735 03 WAIMEA A 4742 02 KOLOA A 4758 01 KAWAIMAA A 4750 02 KOLOA 560 02 LIHUE A 5575 02 LIHUE	1 22 1 3 22 0 3 22 0 2 21 5 2 21 5 2 21 5	1 159 24 4 159 24 2 159 41 4 159 46 5 159 28 1 159 23	415 180 2150 36 240 640 737 100 375 207	8.8	6A 7A 8A 7A 7A 6A 7A	K	KILAUEA SUG PLIM CO KILAUEA SUG PLIM CO U S COASI GUARO KEKAHA SUGAR CO. KEKAHA SUGAR CU LTO GROVE FARM CO LTO GROVE FARM CO LTO KILAUEA SUG PLIM CO MC BRYOS SUG CO LTO HAWAIIAM SUGAR PL ASSN LIMBE PLIM CO LTO LIMBE PLIM CO LTO LIMBE PLIM CO LTO LIMBE PLIM CO LTO LIMBE PLIM CO LTO LIMBE PLIM CO LTO	HANA 354 HAMA AIRPORT HANAHULI 281 HOLUA CABIN 259,5 HONOKOHUA 483 HONOLUH 403 HONOLUH FLO 49 494 HONOMANU GULCH 341 IAO NECUC 387-2	1122 1125 1148 1552 1882 1887 1914 1935 2208	01 HANA 01 HANA	1 20 45 1 20 46 1 20 41 2 20 45 4 20 58 4 21 00 4 21 01 1 20 47 3 20 53	155 59 156 01 156 01 156 13 156 36 156 39	120 61 325 6930 870 135 125 6280 1100	114	8 A 11 A 7 A MO MO 6 A MO	c .	HARRY MASEGAWA HAWAIIAN AIRLINES KOALI RANCH HALEARALA MAIL PARA RG MAUI PIMCAPPLE CO SMAUI PIMCAPPLE CO SMAUI PIMCAPPLE CO HALEAKALA RANCH CO STATE OIVISION OF PARK EDWARO CHANG
LINUE #8 AIRPORT  MAKAHUENA POINT  MAKAHUEN P05  MANA 1020  M + M 1001  MULUAN 1149  MULUAN 1149  MULUAN 1149  NUNT #AJALEALE TU47  NIU RIDGI 1 35  N #AILUA DITCH 1051	R 5580 02 LIHUE 5785 02 KULOA A 5864 03 WAIMEA 6082 03 WAIMEA 607 02	2 21 5 3 21 5 3 22 0 2 21 5 3 22 0 1 22 1 2 22 0 3 22 0	9 159 21 2 159 27 5 159 38 2 159 46 5 159 28 7 159 36 1 159 20 4 159 30 4 159 30 4 159 30	52 140 11 300 3500 330 5075 1250	9A 6A	8A 7A 9A 41D 7A		U S WEATHEP GUREAU  U S COAST GUARD  OLOFELE SUGAF CO  REKAHA SUGAP CU LTO  GROVE FARM COMPANY  U S GEO SURVEY  LIHUE PLANTATION CO.  U. S. GEO. SUPVEY  KEKAHA SUGAP CO LTD  LIHUE PLIN CO LTD	KAHOMA INTAKE 374 KAHULUI W8 AP KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KFAHUA 610	2552 2572 2630 2679 3433 3576 3910 4091 4193	04 LAHAIMA 03 WALUKU 01 MAKAWAO 04 LAHAINA 02 HANA 03 MAKAWAO 01 HANA 02 MAKAWAO 03 WALAWAO 03 WALAWAO 03 WALAWAO	4 20 54 3 20 54 1 20 51 1 20 54 4 20 53 2 20 39 3 20 52 1 20 50 2 20 42	156 38 156 26 156 16 156 13 156 38 156 08	2000 48 2520 700 1585 1020 480 980 20	MID 7A	WI MID MO 7A WI 5A MO 8A 7A	c .	PIONEER MILL CO LTO J S WEATHER BUREAJ E MAUI IRR CO LTD E MAUI IRR CO LTO PIONEER MILL CO LTO HAUPO RANCH HAWAIIAN COM + SUG CO E MAUI IRR CO LTO A. L. CORELL HAWAIIAN COM + SUG CO
N WAILUA RIVER 1055 PH MAININA 1115 PRINCEVILLL RAMCH 111 PUEHU RIDGE 10A0 PUHI 1013 RESSERVIR 6 1004 STABLE CAMP 1055-1 WAHIAWA 930 WAHIAWA MUUNTAIN 990 WAIAMI LUBER 1054	893 01 LINUE 8155 01 MANALEI 9205 03 WAIMEA A 8217 02 LINUE 8694 02 LINUE 8694 02 KOLOA 8959 02 KOLOA 8959 02 LINUE	2 22 0 1 22 1 1 22 1 3 22 0 2 21 5 2 27 5 2 27 5 2 27 5 2 27 5	4   159   26 2   159   34 3   159   29 1   159   42 8   159   27 4   159   27 4   159   34 8   159   34 1   159   27	101 295 1660 329 420 740 215 2100	6A	6A 7A 7A 8A 8A 8A MO 6A	4	LIMBE PLIN CO LTO  NC BRYDE SUG CO LTO  PRINCEVILLE PANCH  REKAHA SUGAP LO LTO  GROVE FARM CO LTO  LIMBE PLANTATIOM CO.  MC BRYDE SUG CO LTO  ML BRYDL SUG CO LTO  LIMBE PLIN CO LTO	KULA HEIGHTS 323±2 KULA SANATORIUM 267 LAHAJNA 36T LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442	4634 4887 5003 5006 5177 5404 5408	01 HANA 04 LAHAINA 02 MAKAWAO 02 MAKAWAO 04 LAHAINA 04 LAHAINA	1 20 39 4 20 54 2 20 47 2 20 42 4 20 53 4 20 51 4 20 53 1 20 53	156 04 156 35 156 19 156 22 156 41 156 37 156 39 156 15	260 5788 2520 3004 45 1280 220 1240 715	7A 7A	7A 5A 7A 7A VAR 7A MO 7A	c c	KIPAHULU CATTLE COMPAN SMAUI PINEAPPLE CO KENNETH WILLEY KULA SANATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO E MAUI IRR CO LTO PIONEER MILL CO LTO
WAIAMA UPPER 1052  WAIAWA 943  WAILUA KAI 1365  WAIWEA 947  WEST LAWAI 931  ISLAND OF HAMU  AIEA FIELD 625 761  BERETAMIA PUMPING STA	9966 02 LIHUE 9253 03 WAIMEA A 9667 02 LIHUE 9629 03 WAIMEA A 9955 02 KOLOA A 0111 03 EWA 0211 02 HONOLULU	3 21 5 2 22 0 3 21 5 2 21 5	1 159 28 9 159 43 2 159 21 7 159 41 4 159 31 5 157 57 9 157 51	780 10 50 20 210		8A 7A 8A 6A		LIMUE PLTN CO LTD  LEEANA SUGAR CO LTO  LIMUE PLANTATION  MAIMEA SUG MILL CO  MC BPYOE SUG CO LTO  WAIAHOLE WIR CO LTO  BOARD OF WIR SUPPLY	OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 PAAKEA 350 PAIA 406 PANILEIHULU 259.2	7040 7059 7066 7194 7566 7674 7857	04 LAMAINA 04 LAMAINA 01 MAKAWAO 04 LAMAINA 04 LAMAINA 01 HANA 01 WALLUKU 02 HANA 01 MAKAWAO 03 WALLUKU	4 20 59 4 21 02 1 20 48 4 20 49 4 20 51 1 20 55 2 20 41 1 20 49	156 36 156 17 156 38 156 36	129 340 4127 7 800 1260 170 3570 485		VAR VAR 7P MO 6A 6A WI 7A 6A		S MAUI PIMEAPPLE COMPANY MAUI PINEAPPLE COMPANY MAUI CO MATER OEPT PIONEER MILL CO. PIONEER MILL CO. ID HAWAIIAH COM + SUS CO KAUPO RANCH CO. HASEROT PINEAPPLE CO. WALUNG SUGAR CO.
CAMP 84 807 CHUPCH COLLEGE LAIL COCOMUT 155 AND 840.1 OWS.IT HIGHLANDS 780 E A PLANTATION 741 HALAMA SHAFT 771.2 HELEMAMU INTAKE 881 HONGLOA 725.2 HONGLULU OBSERY 702.2	A 0300 03 EMA 034U 01 KODLAUPOKO 0350 01 KOOLAUPOKO 0438 02 HONOLULU 0507 03 EMA 0964 02 HONOLULU A 1384 05 MAIALUA A 1540 03 EWA	3 21 2 2, 21 2 5 21 2 3 21 3	1 158 02 3 157 54 3 158 00 4 158 06 9 158 00	680 20 13 565 42 170 1274 2220	8.8	6. 8. 7. WI /A- 9. 9.	C C C C C C C A	OEL MONTE CORPOPATION RICHARO COBURN U OF H MARINE LAB J. L. BAMMING EMA PLANTATION CO BOARD OF WATER SUPPLY WAILAULA AGE CO LTO M. V. VON MOLT U S COAST + GEODETIC U S WEATHER BUREAU	POLIPOLI SPRINGS 267-2/ PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNEME 396 PUU PAKI 352 SPRECKELSVILLE 400-2/ TWIN GATES 261-3	8070 8336 8444 8543 8553 8688 8742 8744	02 MAKAWAO 01 HANA 04 LAHAINA 03 WAILUKU 01 HANA	2 20 41 1 20 50 4 20 55 3 20 53 1 20 46 3 20 54 3 20 54 1 20 46 1 20 48	156 20 156 13 156 38 156 27 156 03 156 25 156 23 156 15	6150 2980 2500 60 2160 85 1310 5230		VAR MO 7A 8A VAR MO 7A 8		STATE OLV OF FORESTRY E MAUI IRR CO LTO PIONEER MILL CO LTD HAWAIIAN COM + SUG CO SEAST MAUI IRRIGATION CO HAWAIIAN COM + SUG CO KAOMOULU RANCH HALEARALLA RAMCH CO PIONEER MILL CO LTO
#HONOLULU MBAP 703 #HONOLULU SUBSIA 704 H S P A EXP SIA 707 KAALAKEI 724.6 KAHANA 864 KAHUKU 972 KAILUH FIRE STA 791.3 KALIHI RES SITE 777 KAMEHAM 724.7 KAMEHAM 724.7	1924 02 HOMOLULU 2146 02 HONOLULU 2269 02 HONOLULU 2462 01 KOULAULOA A 2570 01 KOOLAULOA	2 21 1 2 21 1 1 21 3 7 21 4 1 21 2 2 21 2	0 157 55 9 157 52 8 157 50 8 157 43 1 157 54 1 157 57 4 157 45 3 157 50 9 157 41 5 157 49		8A			U S WEATHER BUNEAU H S P A EXP STATION H S P A EXP STATION HRS, MILLIE ZAPATA WAIAHOLL WIR CO LTD KAHUAU PLIN CO KAILUA FIRE STATION BUARD OF WIR SUPPLY HAWAII NATIONAL GUARD STATE HOSPITAL	WAMIKULI 364 WAIEMU CAMP 484 WAIMEE VALLEY 482 WAIKAMOI 449 WAIKAMOI OAM 336 WAIKAPU 390 WAILUA IKI 346	8955 9275 9315 9332 9335 9376	04 LAHAINA 03 WAILUKU 04 WAILUKU 01 HANA	2 20 39 4 20 54 3 20 55 4 20 57 1 20 52 1 20 48 3 20 54	156 40 156 31 156 32 156 12 156 14	1900 580 320 300 1200 4320 470 2630 200 220		8A 6A 6A WWW VAR 6A	c	ULUPALAKUA RCH CO LTO PIONEER MILL CO LTD WAILUKU SUGAR CO WAILUK SUGAR CO
KAMEOHE RANCH 838 KAPAKA MANA! 905:1 KAPALAMA 773 KAWAIMAPA! 84:1 KAWAI IRI IMTAKE 88U. KAWELA MAUFA 905:5 KUOLAU DAM 833 LUALUALE! 804 LUALUALE! WIR TUNNEL	A 3123 OI KOOLAUPOKC 3220 OI KOULAULOA 3268 O2 HONDLULU 3734 O5 WAIALUA 2A 3741 O5 WAIALUA 2A 3741 O5 WAIALUA 4756 O5 WAIALUA 4766 O5 WAIALUA 5647 O4 WAIAWA A 5650 O4 WAIAWAE	1 21 2 1 21 3 2 21 3 5 21 3 5 21 3 5 21 3 6 21 3 4 21 2	3 157 47 6 157 54 1 157 52 5 158 11 4 157 59 0 158 00 3 158 05 0 157 58 6 158 08	365 10 614 20		8 · 7 · W ; 7 A B A 7 A W I		**ANEDHE RANCH OF GEORGE H. (#1FT **ANEHAME HA SUMDOLS MAIALUA AGR CO LTD **MAIALUA AGR CO LTD **ANEHAME HA MAIALI NATIONAL GUARD MAIALUA AGR CO LTD C **F OFFICEP HEOG USN AMMUNITION DEP U \$ NAVY HILNOR LUM	ISLAMO OF HAWAII AHUA UM! 75 AWINI 182.1 EAST HONORANE 183.2 HAINA 214 HARALAU 142 HALEMAUMAU 52 HALEPIULA 117	0040 0190 0450 0840 0905 1033 1060	05 N KONA 01 N KOHALA 01 S KOHALA 01 HAMARUA 02 S HILO 03 KAU 01 HAMARUA 02 HAMARUA		155 47 155 43 155 43 155 28 155 08 155 17	5220 1870 4240 461 105 3648 5770 9220 3971	7A	MI WI MC 71 7A MO MO MO 8A		GREENWELL RANCH KOHALA OITCH CO LTD KOHALA OITCH CO LTD HUNDI AN SUCAR CO HENERIC SUGAR CO- HUNELI NAT PARK KUKAILU RANCH CO STATE OIV, OF PARKS HAMAII NAT PARK
LULIFU 781.7  LUMALILU MOMI 724.2  MAKAHA KAI 796  MAKAHA VALLEY 600-1  MAKAPUU POINT 724  MANOA TUNNIL 2 716  MANOA TUNNIL 2 716  MANAALUA 770  MOUNT KATAL 844  NUUANU RES 4 783  NUUANU RES 4 783  NUUANU RES 1851 8 5 77	5655 01 KOULAUPUKU 5675 02 HONOULUU A 5766 04 WALANAE A 5781 04 WALANAE 5800 02 HONOULUU 6130 02 HONOULUU 6130 02 HONOULUU 6395 02 HONOULUU 6395 02 HONOULUU 6395 04 WALANPOKO 6395 04 WALANAE	4 21 2 2 21 1 2 21 7 2 21 2 2 21 2 4 21 2 2 21 2	4 157 49 7 157 42 8 158 13 9 158 12 9 157 39 9 157 49 1 157 46 1 157 54 1 158 09 1 157 49	40 25 160 538 220 650 410 20	ВА	7. 7A 8A 8A 8A 810 9A		LUNALILO HOM- CAPITAL INVEST CO CAPITAL INVEST CO US COAST GUARD MPS JOHN H, JEAUMONT BOADD OF WIR SUPPLY EXP. 1A. HAS.P.A. JOHN A ROXBURGH FEDERAL AVIATION ADM. BOARD OF WIR SUPPLY	HAWI 168 HILO WB AIRPOPT HOUALOA 70 HOUALOA 70 HONAUMAU 27 HONOHINA 137 HONOKANE 1816-1 HONOMU MAUKA 138 HONJAULA 71	1339 1492 1557 1562 1665 1701 1864 1960 2047	02 S HILO 04 N KOMA 04 N KOMA 04 N KOMA 04 S KOMA 02 N HILO 01 N KOMALA 02 S HILO 04 N KONA 04 N KONA	1 20 14 2 19 43 4 19 38 4 19 37 4 19 27 2 19 56 1 20 09 2 19 51 4 19 40	155 50	27 3220 14 1089 300	МІР	7A MIO MI MO 7A 7A 7A 7A 7A MO MO	10	NOMALE SUGAR CO  JUS MEATHER BUREAU STATE DIV OF FORESTRY VARIOUS RANCH HANDS MRS MALAE W HUA PEPERKE SUGAR COMPANY KOHALA UITCH CO LTO PEPERKE SUGAR CO. STATE OIV OF FORESTRY STATE OIV OF FORESTRY
OPACULA 870 PALOLO VALLEY 718 PAUDA FLAIS 784 PERR LITY TERCE 754* PORTLOCK ROAD 724*4 PRI WAMIAWA 820*2 PUNCHBL**I CRATER 709 ST STEPHIN S SEM 788	A 7150 05 MAIALUA 7664 02 HONDLULU 7810 02 HOMDLULU 1 7933 03 Fm. 8126 07 HONDLULU A 8172 05 WAHIAWA 8310 01 FOOLAULOA A 8316 02 HONDLULU 8600 01 KOULAUPOKO	2 21 2 5 21 3 2 21 2 2 21 2 3 21 2 2 21 1 5 21 3 1 21 1	1 157 50 4 158 02 0 157 48 1 157 68 7 157 68 7 157 63 8 158 01 5 157 54 9 157 51 2 157 47	700 20 360 488	8A	7 410 5P 8A 8A 8A	r F	BUARO OF WIR SUPPLY WAIALUA AGR CO LTO BOARD OF WIR SUPPLY BUARD OF WIR SUPPLY JAMES MUMEMO GEOPGE L. BRENNER PINCAPPLE RESEARCH IMST KAHUKU PLIN CO NAT MEM CEMETERY REV R CULLINAN	HUEHUE 92A  KAALA IKI 12  KAAWALOA 29  KAHIAWAI 3×4  KAI NALIU 73B  KALAPAMA NO 1 6×8  KAMAOA NO 2 5  KAMELA 192×2  KAMELA AIRPOPT	2156 2249 2327 2512 2751 2894 3048 3077 3078	04 N KOMA  03 KAU  04 N KOMA  03 KAU  04 N KONA  02 S HILO  03 KAU  01 S KOHALA  05 S KOHALA	4 19 45 3 19 08 4 19 30 3 19 08 4 19 32 2 19 20 3 19 02 1 20 01 5 20 00	155 59 155 34 155 55 155 46 155 56 155 02 155 40 155 40	1960 1340 1330 3700 1500 10 1375 2670 2665	7A 6A 8A	7A. 8A. 71. VAR. WI. 6A. 8. 6.		HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELL P. SMITH KONA EXPERIMENT STA HAWAIT NOLCANOES NAT PK DARKER RONCH HAWAITAN AIRLINES HAWAITAN AIRLINES HAWAITAN RANCH CO. INC.
TANIALUS PEAR 780 TANIALUS 2 78045 BUNIV OF HAWAII 713 WANIAWA UAM 863 HAIAWAL UAM 863 HAIAWAL 807 HAIALAE KAHALA 715 HAIALAE KAHALA 715 HAIALAE 798 WAIAMAL MAUKA 803 HAIAWAL 803	8730 02 HONCLULU 8738 02 HONDLULU A 8815 02 HONDLULU A 8845 02 HONDLULU 9185 02 HONDLULU 9185 02 HONDLULU A 9231 04 WAIAHAE A 9238 04 WAIAHAE A 9238 04 WAIAHAE	2 21 2 2 21 2 2 21 1 5 21 3 2 21 1 5 21 3 4 21 2	0 157 49 0 157 50 8 157 50 0 158 03 6 157 53 7 157 47 5 156 07 7 158 TI 9 158 09	2000 1325 79 854 745 40 33 20	7A	7A 8A 7A 8A 7A 7A	-	BOARD OF MATER SUPPLY P. F. WHITE DEPT OF GEOSCIENCE WAIALUA AGR CO LTU MAIAHOLE MIR LO LTU MAIAHOLE MIR LO LTU MAIAHOLE MIR LO LTU MAIAHOLE MIR LO LTU CAPITAL INVEST CO CAPITAL INVEST CO	KAUMANA 88.1 KAWAINUI LUWER 193 /K KEAAU 92 KEAIWA CAMP 22.1 KEALAKEKUA 26.2 KEANAKULU CAMP 124.2 KEMENA 181.2 KEMENA 181.2	3510 3770 3872 3925 3977 4096 4245	03 KAU 02 PUNA 02 S HILO 01 HAMAKUA 02 PUNA 03 KAU 04 S KONA 02 HAMAKUA 01 N KOHALA 01 N KOHALA	2 19 41 1 20 05 2 19 38 3 19 14 4 19 30 2 19 55 1 20 07	155 39 155 02 155 29	2140 290 1123 1080 280 1700 1450 5280 3840 2520	8A 8A	VAR VAR WI 8A 8A WI	C specie	BOARD OF WATER SUPPLY SHIGEO MASUYA HOMONAA SUGAR CO PUNA SUGAR CO HAWAILAN AGRI. COMPANY MISS AMY GREENWELL SLATE DIV. OF FORESTRY KOHALA DITCH CO LTD KOHALA DITCH CO LTD
MAINAMA 836  MAIKANE 889  MAIKIKE 717-2  MAILUPE RESERVOIR 170  MAILUPE VEY 5CH 723-6  MAINAME 79-4  MAINIA 89-2  MAIPHAND 75  MILINEMINA RISE 72-1  LAMO OF MOLOPAL	A 9340 OI KOOLAUPOKU	2 21 1 2 21 1	8 157 56 0 157 53 6 157 49 8 157 45 8 157 45 1 157 44 8 158 04 3 158 01 8 157 47	600 760 10 170 180 60 420 59	8.4	WI 8A WI 8A 7A 8A		WAIAHOLL WIR CO LIU WAIAHOLE WIR CO LID HONOLULU ZOO BOARO OF WIR SUPPLY WAILUPE VALLEY CHOUL ST DIV WIR + LAND DEV WAIALUA AGR CO LID UAHU SUGAR CO BOARD OF WIR SUPPLY	KOHALA 179A KUHALA MAULILI 176 KOHALA MISSION 175.1 KOIAWE LUWER 196 KOWA AIRPORT 68.3 KUKAJAU 222 KUKUIMAELE MILL 206 KUKUIMAELE MILL 206	4670 4675 4680 4684 4764 4815 4928 4938	OI HAMAKUA	2 19 44 1 20 14 1 20 13 1 20 14 1 20 05 4 19 39 1 20 02 1 20 07	155 09 155 47 155 48 155 38 156 01 155 21 155 35	1925 1490 309 960 537 720 15 840 980 300	7A 8A	WI 7A 7A #1 8A 6A 6A	ř	STATE DIV OF FORESTRY MAUNA KEA SUGAR CO. KONALA SUGAR CO KUNALA SUGAR CO K. LYNAN BOND HONOKAA SUGAR CO HAWAIIAN AIRLINES HAMAKUA MILL CO HUNOKAA SUGAP CO HONOKAA SUGAP CO
CALAUPAPA 56) RAMALU MAURA 562.0 KAUNAR ARALI 536 KAUNAR ARALI 736 KUANARARAI 7417A 536.1 KUALAPUU 536 MAPULEHU 562 MAUNALUA 511 MUUNAR AP 526 PUU 3MORJ KRACH 562.0	A 4394 01 MOLURAI 4778 01 MOLURAI 6138 01 MOLURAI 5190 01 MOLURAI 6534 01 MOLURAI 8549 01 MOLURAI	1 21 0 1 21 0 1 21 1 1 21 0 1 21 0 1 21 0	2 156 59 4 156 52 6 157 01 6 157 12 157 12 157 12 4 156 48 8 157 13 9 157 06 9 156 44	30 60 12 70 560 878 20 1075 450 700	BA	8A 6A WK 7A 8A VA 8A 6A		KALAUPAPA SETTLEMENT W. J. CARSTEN MOLOXAI RANCH LTU MOLOXAI GENERAL HOSPIIA MOLOXAI RANCH LTU DEL MONTE CORPORATION W. S. P. A. LIBBY MONGILL * LIBBY ALOHA AIRLINES PUUDHOKU KANCH	KULANI CAMP 79 KULANI MAUNA 76  NULANI SCHOOL SITE 78 LALLAMILO FLD OFF 191-1 LANIHAD 08 C LAVA IREE PARK 66-1 MAUNA KEA BEACH MAUNA LOA SLOPE OBS	5011 5018 5021 5260 5330 5460 6134 6180	05 N H1LO	5 19 35 2 19 35 1 20 01 4 19 40 2 19 29 3 19 07 1 20 01 5 19 32 4 19 37	155 50 155 50 155 35 155 58	5170 8300 5735 2615 1530 650 1760 103 11146 475	8A MID	WI WI 8 8 8 8 MID 8 WAR		ST DEPT OF SOCIAL SER U S WEATHER BUREAU ST OEPT OF SUCIAL SER STATE DEPT OF L * N RE- NUMA EXPERIMENT STATUS STATE DIV. OF PARK STATE DIV. OF PARK STATE DIV. OF PARK DAVING KEAR BEACH HOTEL U S WEATHER BUREAU KONA EXPERIMENT STA KAHUA RANCH
WAIKOLJ 540	A 9404 OI MOLOFAI	1 21 0	8 156 55	3550		Tw		MOLOKAI RANCH	MOAULA 18	6407	03 KAU	1 20 06	155 50 155 30	1380		VAR Mr		KAHUA RANCH HAWAIIAM RANCH CO

STATION	EX NO.	DIVISION	DISTRICT	NAGE 1	ATITUDE	LONGITUDE	ATION	0	TAB	LES	OBSERVER	STATION		X NO.	DISTRICT	AGE 1	TITUDE	ONGITUDE	ATION		SERVA TIME A TABLE	ND	Observer
	INDEX	ΔΩ		DRAI	LAI	LONG	ELEV	TEMP	PRECIP	EVAP. SPECIAL			-	INDEX		DRAINA	LATI	LONG	ELEV	TEMP.	PRECIP.	SPECIAL INT NOTES	OBSERVER
NAPOGPOO 28 NAPOGPOO 28 NAULU FOREST 38.6 NIULIT 179 OOKALA 223 OPINIMALE 2 24.1 PANAUL 27 PANAULU	A 6588 A 6697 6731 A 6806 7131 7166 A 7185 7204 7312 7421 7457 A 7643 7711 7721 8000 A 8051 A 8063 B 186	03 04 02 01 01 01 03 02 03 02 02 02 02 05	S KONA PUNA N KOHALA N HILO S KONA PUNA HAMAKUA HAMAKUA	342121212122222222222222222222222222222	19 00 19 20 19 10 20 14 20 05 20 05 20 05 20 05 20 05 19 16 19 30 19 40 19 45 19 46 19 46 19 46	3 155 00 4 155 33 8 155 59 9 155 00 1 156 17 1 156 17 1 157 17 1 1	55 6 6 3 3 3 1 4 4 4 4 4 5 5 1 4 4 5 5 1 1 1 2 7 7 3 1 1 2 7 7 3 1 1 2 7 7 1 1 1 1 7 7 3 1 1 1 1 7 7 3 1 1 1 1	73 8 95 95 96 75 70 70 70 70 70 70 70 70 70 70 70 70 70	6AA 7AR 6AA 7AR 7AR 7A 6AA 7AA 6AA 7AA 6AA 7AA 6AA 7AA 6AA 7AA 7	C	PUNA SUGAR CO PULTCH NEON SUGAR CO PULTCH NEON SUGAR CO PUNA SUGAR CO PUNA SUGAR CO PUNA SUGAR CO PUNA SUGAR CO PUNA SUGAR CO PAUNA SUGAR CO PAUNA SUGAR CO PAUNA SUGAR CO PAUNA SUGAR CO PUNA SUGAR COPP PAUNA SU	PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82 PUU WAAWAA 94+1 SADDLE ROAO 1 84	A 86 A 85 A 85 A 85 A 86 86	460 0 515 0 5548 0 555 0 555 0 555 0 555 0 557 0 557 0 557 0 557 0 557 0 557 0 557 0 557 0	15 HAMAKUA 14 N KONA 11 HAMAKUA 11 N KOHALA 2 S HILO 5 N KONA 2 N KONA 13 KAU 14 HAMAKUA 2 S HILO 15 KONA 16 KONA 16 KONA 17 KONA 17 KONA 18 K	1 1 1 2 5 2 3 3 3 1	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40	155 12 155 41 155 41 155 23 155 53 155 08	400	8.8	MO MO 7 A 6 A 7 A W M 8 A 7 A		STATE DIV OF FISH-GAM GREENWELL RANCH KIKATAU RANCH CO KOMPALA UTIFIC CO TO DILLING TO THE CO TO DILLING THE CO TO DILLING THE CO TO THE CONTROL THE CO TO THE CONTROL THE CON

PRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN S-NORTH-CENTRAL MOLOKAI: 1-HON DYRRA-ISLAND DIVISIONS) LANAI: 1-HON DYRRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 1-WESTERN S-CENTRAL MOLOKAI: 1-NORTHEAND 2-EASTERN DEVOLUTIERN 1-WESTERN S-CENTRAL MOLOKAI: 1-NORTHEAND 2-EASTERN 1-WESTERN 1-WESTE

#### REFERENCE NOTES

Additional information regarding the climate of Bavaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. O. Box 3650, Bonolulu, Bavaii, or to any Weather Bureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA BAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, disensional units used in this hulletin are Temperature in 'F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME. Data in the "Monthly Extremes", "Daily Precipitation" table, "Daily Temperature" table; and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station Indea. The Station Index shows observation time in local

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. Max and Min in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960

STATION NAMES. Bawaii state key numbers are included following station names in the several tables DELAYED DATA AND CORRECTIONS will be carried only in the June and December Issues of this bulletin.

INTERPOLATED VALUES for monthly precipitation totale may be found in the annual issue of this publication.

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" fable, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature' table is indicated by no entry.
- + And also on an earlier date or dates
- ++ Highest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown
- The letter 'A' shown following cition mase in "Climitogical Daia" table "Daily Precipitation" table, and "Station Index", indicates amount carried in the "Total" column in for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletims for dates of measurement. Where gaves are read only once monthy, assurements ands on the first of a month are credited to the last day of the preceding month.
- H Adjusted to a full month.
- J "Supplemental Data" table
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage
- V Includes total for previous month
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
- AR Observation made after rain.
  - C Is Special Column of Station Index indicates Recording Rain Gage Station. However, proceeding the processed for appetial purposes, and are published later in the "Mourly Precipitation Data" buileting It is dialy assume
  - MO Gage read once monthly, usually on the last day
  - OC Gage readings at periods varying from a few weeks to several months
  - Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
  - SS Observation time is near sunset
- VAR Observation time is variable
- WI Gage read weekly or irregularly only.
- WM Gage read weekly and last day of month.
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

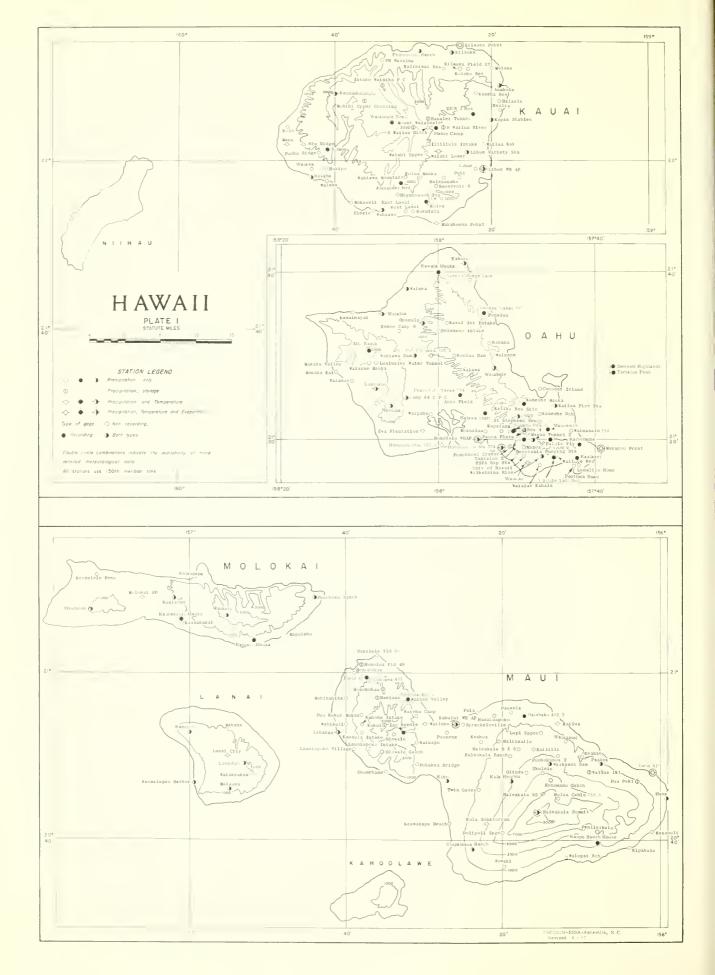
Stations appearing in the tables with no data were either missing or received too late to he included in this issue.

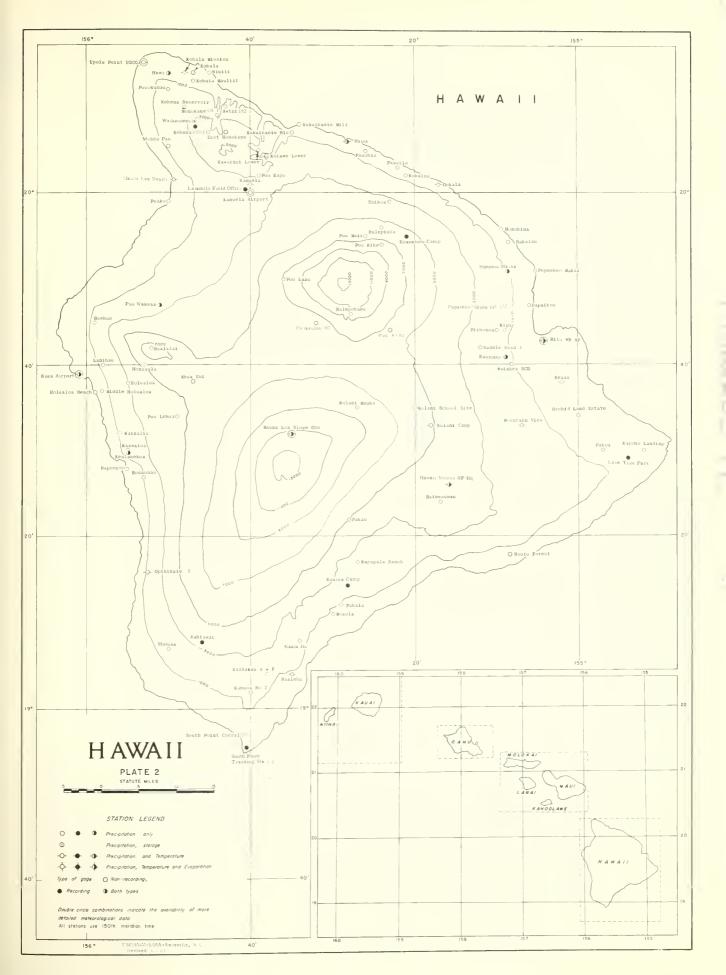
General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the history of changes in locations, exposure, etc., of cubstations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be found in the Jatest annual issue of Local Climatological Data, price 15 cents. These publications may be found in the publication of Local Climatological Data, price 15 cents. These publications may be found in the publication "Substantial the address shown shows.

Subscription Price 20 cents per copy, mouthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and soney orders should be made payable to the Superinteedest of Documents, Government Printing Office, \*maintage, D. C. 20402.

USCOMM-ESSA-ASHEVILLE- 4/30/68-890







CLIMATOLOGICAL DATA ERS/TY

U.S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE

HAWAII

FEBR. FEBR. olume 64 FEBRUARY 1968

No. 2

CLIMATOLOGICAL DATA

JUN 17 1968

										<i></i>	_			1	S					: /				
		1			Tem	perat	ure									7~		Preci	pitation					
					-						_	lo. of	_	-		ECH	. &	4C	one	w, Siee	1	N	- 1	Days
Station		Average	Averoge	Average	Departure From Normal	Highest	Dote	Lowest	Dote	Degree Days	90° or Above		32° or Below	-	Totol	Departure From Norm	Greatest Do	Dote	Totol	Mox. Depth on Ground	Dote	ò	50 or More	1.00 or More
1SLANO CF KAUA1																								
ANAHOLA 1111 KANALCHULUHULU 1075 KAPAA STABLES 1104 KILAUŁA FIELD 17 1135 KILAUŁA POINT 1133	A A	63.7	48.0 63.7	55.9 72.1		69 85	6	38 55	7 23		0	0	0	0	2.95 16.33 3.46 2.51 3.73	- 2.51 - 5.67	4.98 .60 1.50	29	.0 .0 .0			17	6 2 3	6 0 1
KOLOA 936 LIMUE WE AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	76.9 79.3	60.8 62.6	68.9 71.0	- 1.8 .0	81 83		56 56			0	0	0	0	4.88 3.69 3.87 9.55 8.44	- 1.36 - 1.63 1.06	2.08 1.81 3.73 2.10	21	.0 .0	(		6	2 2 5	0 1 1 3
PUEHU RIDGE 1040 WAHIAWA 930 WAIAHI LCWER 1054 WAIMEA 947	Α	79.2	57.3	68.3		84	26+	50	10		0	0	0	0	7.54 3.18 4.66 3.86	- 1.08	2.58 1.14 1.58 1.62	2 l 2 l	.0	(		9	1 2 1	1 1 1
ISLANO				67.2											5.62				• 0			١ .	i	
1SLAND OF DAHU																								
HONOLULU OBSERV 702.2 HUNOLULU WBAP 703 KAHUKU 912 KANFOHE MAUKA 781 KOOLAU OAM 833	R A	80.6 80.6M 78.1	66.1 61.0F 65.6	73.4 70.8M 71.9	1.0 8 .7	83 87 82	21	56	26. 12 11.		0	0	0 0 0	0	3.96 2.91 3.45 4.72 3.63	2.50	1.02 .74 1.10	20	.0	(		8 6 10 10	3 2 4 2	1 0 0 2 0
LUALUALE1 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLU VALLEY 718	А	76.3	68.0 59.8	72 <b>.2</b> 68.0	1.3	80	25		27•		0		0		3.95 3.02 2.44 3.87 4.96	51 - 8.61 - 4.54 - 6.04	1.06 .65 .98 .90	25 25 3	.00			7 7 6	3 1 3 6	1 0 0 0
Ph1 wahlawa 820.2 PUNALUU 884 wahlawa Dam 863 walahule 837 walalua 847	A A A A	79.1	58.8	69•0 70•2	.0	83		53	12		0	0	0	0	3.63 4.71 4.42 4.27 3.16	- 8.85 - 1.65	.95 1.35 1.06	15	•0			9	3	0 1 0
WAIKIF1 717.2		82.4	63.3	72.9		85	23•	57	10		0	0	0	0	2.80 2.69	- 1.00	.41	26+				9	0	0
WAIPAHU 750 ISLAND	A			71.1											3.68				.0					
ISLAND OF MOLOKAI  KUALAPUU 534  MAPULEHU 542  MAUNALGA 511  MULCKAI AP 524	А	76.9M	64×9ħ	70.9M		80	29•	57	10		0	0	0	0	7.85 8.41 5.22	4,21 4,31 2,14	2.40 3.00 1.26 1.29	20	.0			11	5.	2
ISLANO				70.9											, ,									
ISLANO CF LANAL																								
LANA1 CITY 672	Α	76.5M	61.01	68•dM	3.3	79	26 •	56	29		0	0	0	0	8 • 34	4.61			• 0					
1 SLANO				68.b											8.34				• (					
ISLAND OF MAUL																								
HALEAKALA B E S 434 HALEAKALA RS 338 HANA AIRPORT HONOKCHUA 493 KAHULUI WB AP	A A R	57.6 80.3 78.2	43.1 63.9 62.7	50.4 72.1 70.5	- 1.2		16 29•	5.5	10		0 0	0	0	0	5.48 14.76 2.93 6.12 5.19	2.38 2.65	1.42 4.65 .54 1.90 2.33	18 9 22 21	.0			10 9 10 8	4 6 1 2 2	2 4 0 1 1
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAIMA 361	А	70.3	55.9 64.9	69.5 63.1 72.7	2.0		22	50 61	10+		0	0		0	3.71 2.70 10.48 15.93 5.68	= 6.76 =16.71 1.55 12.05 3.59	3.91 4.65 1.48	17	.0			12 12 8	5	3 4 2
PAIA 406 WAILUKU 392		80.4	65.3	73.1	1.8	85	5	60	11		0	0	0	0	4.77 8.88	1.21 5.03	1.62	22	.0			11	5	1 4
15LANO				67.3											7.22				• (					

#### CLIMATOLOGICAL DATA

CONTINUED																			FEB	RUAR	Y 1	968	
				Ten	pera	ture											Preci	pitation					
											No. of	f Doy	's					Sno	w. Sleet		No	of D	)oys
Statica				- Low					Doys	М	ax.	N	in.		rmol	Вαу			Depth		More	More	More
	Averoge	Average	Average	Departure From Narmol	Highest	Dote	Lowest	Dote	Degree D	90° or Above	32° or Below	32° or Below	0° or Below	Totol	Deporture From Normol	Greatest Day	Dote	Totol	Mox. Del	Dote	5	.50 or M	1.00 or A
ISLAND OF HANAII																							
HAINA 214 HAWAII VOLCNS NP HO 54 HILO AR AIRPORT R	79.2 67.4h 84.3	61.4 51.7M 65.4	70.3 59.6M 74.9	.8 1.7 4.3	86 73 92		45	10+ 16+ 11		0 0 3	o	0	0	1.62 5.39 11.46	- 5.30 - 4.86 - 1.48	.60 1.57 8.96	4	.0	0 0 0		6	1 2 2	0 1 2
HUEHUF 92A A KAINALIU 73B	77.3	61.2	69.3		83	20	57	12+		0	0	0	0	4.79 4.25	2.08	1.71	18	.0	0		7	3	1
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2	72.6 83.9 78.3	48.0 62.5 61.1	60.3 73.2 69.7	2.9	76 89 82	22+	39 58 58			0 0	0	ō	0	6.18 13.60 2.94	.17	1.55 8.42 1.64	4	•0	0 0 0		9 6 5	5 3 1	2 3 1
KEHENA RESERVOIR 176.1 A KONA AIRPORT 68.3	81.1	65.4	73.3		84	29+	61	1		0	0	0	0	6.55 3.19		1.45	18	.0	0		4	3	1
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107 A	65.7h 83.4 78.9	44.7N 67.0 61.4	55.2M 75.2 70.2	1.4	73 90 86	20	38 64 57			0 1 0	0	0	0	2.35 3.43 3.33 10.65 1.76	- 4.96 4.06	.65 1.46 1.17 3.37	8	.0	0 0 0		6 6 5 7	3 1 2 4	0 1 1 4
PUAKO 95.1 PUU MAAMAA 94.1 UMIKOA 118 WAIAKEA SCO 86.2														2.71 4.86 2.43 8.78	2.29 - 8.12	.60 .46 5.46	8	.0	0 0 0		5	3 0 3	0 0 2
ISLAND			68.3											5.28				• 0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE, 92° ON THE 20TH AT HILO WB AIRPORT, HAWAII

LOWEST TEMPERATURE, 27° ON THE 1ST AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 17.34 INCHES AT KALAPANA NO 1 67.8, HAWAII

LEAST TOTAL PRECIPITATION: 1.17 INCHES AT KULANI MAUKA 76, HAWAII

GREATEST ONE-OAY PRECIPITATION, 8.96 INCHES ON THE 30 AT HILO WB AIRPORT, HAWAII

#### SPECIAL WEATHER SUMMARY

Although February was free from violent or destructive storms, it was nevertheless a month of noteworthy weather.

It was distinguished chiefly by the continued failure of the trade winds, an absence which had begun early in December. While the trades in Hawaii are on the average less prevalent in February than in almost any other month, their absence for so extended a period was without recent precedent. February 1968 was, in fact, the first month without a single daily "fastest mile" from the northeast at Honolulu International Airport since records of this kind began there in March 1951.

Other noteworthy weather events included several days of strong southwesterly winds and high surf, an unusually large number of waterspouts and funnel clouds, and localized heavy rains on Lanai, Molokai, and Maui.

1) HEAVY RAINS: On the morning of the 3d, heavy rain in the Puna district of Hawaii Island made the Keeau-Pahoa Road impassable and flooded parts of Pahoa Village, but apparently without doing serious damage. Heavy rain also fell in the Lihue, Kauai, area.

During the morning of the 21st, heavy rain caused some flooding of streets and property in the Kaunakakai area on Molokai, but seems to have done no damage.

2) STRONG WINDS AND HEAVY SURF: On the 15th, strong southwesterly winds ahead of a slowly-moving cold front swept into the island chain, causing numerous power failures along Oahu's east coast, unroofing 2 houses in Kaneohe, where at 3:44 a.m. the Marine Corps Air Station recorded a gust of 62 m.p.h. from the southwest, and slightly damaged fruit and vegetable crops on Oahu and Maui.

On the 16th, unusually high surf, driven by southwesterly winds, pounded Hawaii Island's Kona coast and, for the third time in 2 months, rolled into a seaside hotel in Kona, but seemingly without causing damage.

On the morning of the 18th it sank an \$8,000 boat in Keauhou Bay, while in the early morning of the 26th, strong winds and high surf tore a \$90,000 fishing boat from its moorings and destroyed it on the rocks fronting Kailua Bay.

3) FUNNEL CLOUDS: At least 12 waterspouts and three funnel clouds were observed on 4 days during the month. Between 9:00 and 9:30 a.m. of the 15th, the Kaneohe Marine Corps Air Station on Oahu's east coast reported 2 separate groups of short-lived waterspouts disturbing the sea

surface 1/2 to 2 miles away. The first group, consisting of three or four spouts, was observed to the south moving eastward; while the second group, containing two or three spouts, was seen to the west moving northwestward. The lowest 200 to 300 feet of the spouts was discernible against a dark background of vegetation, but the tops were obscured by heavy rainshowers. Southwest winds gusting to 45 m.p.h. were occurring at the time, and the waterspouts may have been topographically-induced by winds blowing across the crests or through the passes of the Koolau Mountains to the southwest.

On the 24th, a funnel cloud, associated with a heavy rainshower and towering cumulus, was sighted approximately 1-1/2 miles south of Koko Head, Oahu, at 11:24 a.m. moving slowly north or northeastward. Rotary motion and a downdraft were evident near the funnel, which extended halfway to the ocean from the cloud base. The funnel dissipated at 11:26 a.m. Winds were light and variable at the time. About 3 hours later, between 2:35 p.m. and 2:41 p.m., Weather Bureau personnel observed a stationary vertical waterspout approximately 8 miles south of Honolulu Airport. No rain was observed to fall from the parent cloud. A second spout, accompanied by two funnel clouds, was seen about 10 miles south-southeast of Honolulu Airport at 2:50 p.m., with nearby rainshowers falling from cumulus clouds with bases at 1,500 feet and tops at 8,000 feet. This waterspout dissipated at 3:01 p.m. and the attendant funnel clouds at 3:08 p.m. Stirring of the sea surface was observed with both spouts. Surface winds were west-southwest. 10 m.p.h.

Other waterspout sightings included an aircraft report of one 5 miles southeast of Kahoolawe Island at 8:00 p.m. on the 14th; another some 14 miles southeast of Honolulu Airport at 5:29 p.m. on the 24th, and two others off Kaena Point, Lanai, at 5:45 p.m. on the 28th.

- 4) OTHER EVENTS WORTHY OF MENTION: a) The 92° maximum temperature on the 20th at Hilo Airport, the highest February reading in that station's 21-year history, and 4° above its previous highest maximum for the month.
- b) A fastest mile of 38 m.p.h. (from the southwest) at Lihue Airport on the 20th, the highest "fastest mile" observed in February in its 17 years of record.
- c) HEAVY SNOWDRIFTS ON MAUNA KEASUM-MIT ON ABOUT THE 25TH: The reversal of the wind from the usual northeasterly trades was strikingly reflected in a corresponding reversal in the rainfall pattern. Areas which are "windward "relative to the trades, and, therefore,

# HAWAII - FEBRUARY 1968 SPECIAL WEATHER - CONTINUED

normally "wet" during the trade wind flow, were leeward relative to the southwesterly winds, and hence received less than their customary rainfall. Thus, all of the eastern two-thirds of Kauai and Oahu, "windward" east Maui, and the "windward" (eastern) coasts of Hawaii Island were relatively dry, with most gages reporting less than half of

their monthly means; while, in contrast, the usually dry western areas had well above their monthly averages.

A few stations with 25 years or more of record exceeded their previous highest monthly totals for February.

## Stations Whose Greatest Previous February Rainfall Totals were Exceeded in February 1968

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest February Total	February 1968
MAUI			
Kula Sanatorium	50	15.54	15.93
Launiupoko Village	41	7.74	8.33
Ukumehame	38	6.90	7.77

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Russell Dorr Acting Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

	1													Day	of Mo	onth														
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	-i			16	17	18	19	20	21	22	23	24	25	26	27	28	29 30
LANO OF KAUAI																														
HOLA 1111 A 0ESW000 STA 985 A T LAWAI 934 A ELE 927 A AULA 1110 A	2.95 5.20 5.42 3.04 3.01	.02 .01	.33 .01 .06 T	:	:	1.83 .35 1.03 .08 2.10	ř <sup>O1</sup>	Ť	Т	.01	:	*	.05 .11 .01	.14 .57 .12	.09 .07 .09	.02 .55 .21 .43	.02 .94 .70 .29	:		.01 .44 .29 .4I	.51 1 .58 1 .27 1	. 15	.25 .40 .12	т	*		.01 .13 .10 .07		.09 .01	.03 .14 .06 .02
ENANAHO 1006 A IPO 945 ILIULA 1NTAKE 1050 AKE WAINIHA PC 1086 A IHIWA1 RES 1131 A	5.93 4.88 8.40 6.85 2.63	•13 • •16	.11 .07 .41 .01	.70	.40	1.95 .10 .07 .16			*09 *03	* . 22	:	:	.03 .08 .20	.54 .30 .50	.16	.86	1.04 .51 1.22 1.92	.14	.08	.27 .40	.24 2	• 05	.53 .12 .46	2.40		*37	.11 1.34 .06		.05 .28 .10	.06 .17 .08
ALOHULUHULU 1075 HA RESERVOIR 1092 A AA STABLES 1104 A IA 1112 A HA 944	16.33 4.17 3.46 2.83 3.92	.09 .16 .03	.03 .03 .05	.17		2.57 2.45 1.85			.37	.11 .03	:	:	.03 .03 .09		•16 •06 •23	.02	1.46 .06 .13 .06	.38	.25		2.75 4 .04 1	.00 .57	.03 .14 .18			1.03	.48 .06 .02		.03	.36 .08
UEA 1134 A UEA FIELO I7 1135 A UEA POINT 1133 1 1033 A 936 A	3.21 2.51 3.73 5.87 4.88	.13 .23	.01 .02	.16	• 64	.16	.01	•17	•13 •04 •06	.I3 .12	:		.01 .03 .17	.01 .11 .50	.08	.07 .03 .16 .81	.24 .23 .06 .84	e .61	.16	.04	.01 .85 1.08 2	.80 .59	.01	.01	.01	.08 .15	.10 .06		1.50	.97 .60 .14 .07
A MAUKA 994 A KO RES 1137 A IULA 935 A IE VARIETY STA IE 1020 A	7.22 2.82 3.65 3.93 4.33	.31	.20 .01 .17 .29	.88	* * 1.07	1.23 .53 .82 1.98	.01	.02	.06	.12	:	:	.31 .01	.31 .20 .08	.21 .11 .01	1.01 .05 .17 .29	.84 .13 .30 .07	:		.31 .02 .31 .02	· 2 I	•65 •97	.05			* 09	.09 .04 .09		.01	.17 .88 .10
E WB AIRPORT R HUENA POINT WEL! 965 A 1026 HI UPR CROSS 1083	3.69 4.88 3.[3 3.87 12.79	.02	.13	2.08 1.76 .02 .30 .17	1.58	.01			.09			.01 .04	.10 .04 .11 .07	.07 .06 .33	T .05 .34 .04 .43	.23 .15 .20 .78 2.57	.19	.05 .04 .08 .06	.06 .09	.05	.34		.05		.06	.01 .11 .09	.01	.01	.05 .01 .10	T .06 .05 .02
AA 1145 A RIOGE 1035 :ILUA DITCH 1051 A AINIHA IIIS CEVILLE RANCH 1117	2.31 5.00 9.55 8.44 3.24	.06 .10 .08 .76	.17	*	.08	.53 2.26 T			.01	.31			.07	.12 .17 .18	.14	. 57	.03 1.22 1.12 1.28	* * *11 *55	.11 2.05	.02 .10 .14 T	.01 .40 2 .26 3	. 73	.01 .14 .01		*	* •24 •02	.02 .35 .82 .68			.83 .05 .08 .30
U RIDGE 1040 I 1013 A RVOIR 6 1004 A IAWA 930 A LAWA MOUNTAIN 990 A	7.54 5.97 6.13 3.18 8.25	.36	•15 •13 •01	:		2.56 1.54 .24						:	.12 .37 .23 .02	.38 .24 .15 .38	.25 .02 .08 .18	.89 .18 .78 .27	.74 .50 .57 .25	*	.43		.72 2 .28 .39 1 .21 1	.60	.42		:	:	.49 .09 .10 .11		•05 •09	.24 .07 .06 .02 8.25
AMI LOWER 1054 AMI UPPER 1052 AWA 943 LUA KAI 1065 A MEA 947	4.66 6.18 4.06 2.88 3.86		•03	.48 .55	.40 .35 .23	1.57						.03 * T	.05 .13 .09 .03	.28 .53 .30 .05	.07 .05 .15 .04	.25 .24 .40	.92 1.37 .22 .17	.11 *	.03	.09 .02 .07	.12 1 .33 2 .13 1 .04	.03 .80 .57	.17 .11		•01	.15 .25 .21	*°05		.07	.09 .05 .15
LAWAI 931 A	3.75		.20	٠	*	.57					٠	*	.03	.30	.25	.20	.28			.30	.21	.02	.21		•	*	.09			.09
ANO OF OAHU																														
FIELO 625 761 A TANIA PUMPING STA 94 807 A CH COLLEGE LAIE UNUT ISLANO 840+1	2.51 2.97 3.75 2.20 2.26	.10 .02	.03 .04	.10	* •26 •53 •22	,20 T ,38 T		•02		.01				.37 .49 .50 .04	.05 T	.07 .11 .23 .16	.37 .46 .83 .22 .25	.08	.18	.02 .06 .36	. 47	.12 .43 .31 .33	.06	.06 .11	•	.58 .23 .68	.61 T .74 .03			
PLANTATION 741 MANO INTAKE 881 A JLOA 725.2 A DLULU OBSERV 702.2 DLULU WBAP 703 R	3.16 4.39 5.51 3.96 2.91	.02 e	*10 * * *01	.20	1.02	.90 .56		* * T	:	:	*	:	.33	.51 .15 1.05 .42	*	.08	.24 .90 .39	.06 T	.08 *	.95 * .02 .53	.67 .55	.26 .59 .42	.01 .98 T	:	2.99	.36 .91 .41	.24			•
DLULU SUBSTA 704 P A EXP STA 707 NA 883 A UKU 912 A	2.44 3.02 6.63 3.45 2.06	.05	.05 .25	.42	:	1.28	т	.07	* T	•	•		.35	.11	* T	.37 T	.47 .42 .15	.04	.03 * T	.41 .01 2.00 .39	• 47 • 13 • 39	.37 .41 .49	.02		:	.43 .08 *	3.26	•	•	•
IHI RES SITE 777 EOHE MAUKA 781 EOHE RANCH 838 A ALAMA 773 A AIHAPAI 841 A	4.14 4.72 5.47 5.30 5.80	T .20	.02	.16 .03	.08 .20	.01 .08	.01	.05	•02 •04	.04	.18	*02	* 4 1	.49 .35 .50	•02	.32 .18 .41 3.45	.06 .51 .54 .12	.02	.02	.12	.85	.54 .24 .26 .25	.18 * .22	.66	1.62	1.34 .50	1.06			
AI IK1 INTAKE 880.2 A DD CAMP 8 855 A LAU OAM 833 LUALEI 804 LUALEI WTR TUNNEL A	4.00 6.46 3.63 3.95 V23.00		.01 .03 T	.01	1.34 .45 .02	* T *			.06	.07		.03		.24 .31 1.06	* •22 •02 T	.12 .37	.56	.20 .34	.31 .12 .01	.03 .16 T	.72 .31 .57	• 53 •27 •12	* .26		.02	.67 .40	4.00 .65			
ALILO HOME 724.2 AHA KAI 796 A AHA VALLEY 800.1 A APUU POINT 724 OA 712	2.85 3.93 3.90 3.02 3.72		.01 .01 .07	.06	•12	.14 .55 .56		.08 .10	.02	.05 .09 .06 .09				.20 .71 .68 .33		.40 .20 .04	.50 .35 .33 .25	.03 .10	.04	.12 .17 .21	.55 .45 .47 .50	.10 .35 .49 .28 .37	.04 .08	.17		• • •65 •13	.84 .59 .69 .51			
OA TUNNEL 2 716 NALUA 770 ANU RES 4 783 ANU RESERVOIR 5 775 A EULA 870 A	4.46 3.71 2.44 3.13 3.87		.03 .03	.04	1.01			•02		.05			.26	.41 .47 .28	.01	.76 .08 .26	.04 .37 .02 .33	. ∩4	.02	.70 .38 .05	.02 .66	.44 .47 .32 .45	.20		.02	1.14 .68 .98 .20	.88			
OLO VALLEY 718  DA FLATS 784  TLOCK ROAD 724.4  WAH1AWA 820.2  AALUU 884	4.96 4.32 2.73 3.63 4.71		.02 .04				.02	.02 .06 .27		.05			.52 .56 .23 .09	.40	.02	.66 .46 .36 .09	.02 .95	:	•02	.98 .92 .53 .28	.02 .31 .14	•52 •56 •29 •27 •40	.02	.13	• 41	1.12	.02 .02 .75 .29			
CHBOWL CRATER 709 A STEPMENS SEM 788 TALUS 2 780,5 V OF HAWAII 713 A IAWA OAM 863 A	2.96 4.40 3.55 3.17 4.42	1	.06 .02	.04		.30		.04 .02 .06	T • 0 3	.04	•01	•01	.36	.42 .38 .52 .37		.03 .05 1.06	.50 .44 .56 .37	.12 .01 .40	.02 *	.04 .09 .53	.27	.44 .29 .30 .33 .18	.03	T •06	.01	.31 1.43	.33 .02 .77 .57			
AHOLE 837 A ALAE KAHALA 715 ALUA 847 A ANAE 798 A ANAE MAUKA 803 A	4.27 2.62 3.16 3.77 7.54	* 32	.08 .03 .10	.15	.78	.59		.15	.01	.02				.62 .26 .09 1.04	,19 †	.16 .05 .02	.59	.02 .10 .16	.02	.06 e	. 37	.25 .21 .53 .37 2.27	.11 .12 .11 .09		•06	* +51	1.17 T .35		1.58	
AWA 836 A KANE 885 A KIKI 717.2 LUPE RESERVOIR 170 A MANALO 794 A	4.40 7.44 2.80 3.23 4.46		.05		* * * * * * * * * * * * * * * * * * * *	.18 2.22		:11	* T +67	* .10	T *		.64	.25 .36	s s T	.04	.41	.03	.06	.12	1.34	.30  -31  -20	.02	* .10	*	.25	3.48	*	• 73	2.60
1MEA 892 A IPAHU 750 A	3.58 2.69 3.66		.10	.86	.08	1.32 .23		.10		Т			.38	.13 .33 .02	.04	. I 9	.35 .42	* 02	:	.15 .03	.40 .62 .02	•65 •15 •32	.02	٠	.10	•35 •64	.60	.02		

	Continued														Day	of M	onth														HAWAII FEBRUARY	1968
	Station	Total	1	2	3	4	5	6	7	В	9	10	11	12				16	17	18	19	20	21	22	23	24	25	26	27	28	29 30	31
	15LAND OF MOLOKAL																															
	KEONELELE PENS 551 A	4.67 4.35 7.85		•35 •14						*	•	•	•		.20	.37 1.12 1.01		1.18	:	:	.43 .84		.36	1.68	•68		• • 97	.50				
	HOLCKAT AP 524 PUUDHOKU RANCH 542+1	9.75	1.42	·11	.04	• 02	1.02	т	.07	.57 .88		Ť	-	•	.08	.80		1.29	.44	٠	-12	т	1.27	1.05	T		- 19	•30	т			
	ISLAND OF LANAI																															
A	KAUMALAPAU HARBOR 658 A LANAI CITY 672 A	4.93 8.34 2.90		*25 *41	01	.51	.80	.01	•14	:11	.07	:	:	* T * *	.31		.04 .45	.76	*			* T *			2.78	:	:		:		•13 1•35	
Table 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MALAUEA 676 A MAIAKEAKUA 685 A				:	:	.49	•	1.40	:	•	•	:	.64	:	•	.57	*	•		1.95		:		4.67			4.05	•	•	. 35	:
STATE OF THE COLUMN STATE																																
The content of the	HALEAKALA B E S 434 A	5.48 5.62 14.76	* T T	.08	.02	.05	.01	•	T	•46	.08		•		.01 .02 .35	.15 .18		.53	2.67	.82 4.65			.19	1.58	Ť			.13 .31			•	•
## Company and State   10   10   10   10   10   10   10   1	HALIIMAILE 423 A HAMAKUAPOKO 485 HANA 354 HANA AIPPORT HANAHULI 281	5.31 2.93	.07	.14	.09	• T •46 •20 •05	.99	τ		.76 .45	.01		.10		.28	.02 .14 T	.01	.16		2.24	.02		* •11	1.19	.03	.20	.06	.02		.03		
A SALE CONTROLLED STATE OF THE PROPERTY OF THE	HONOXOHUA 493 A HONOMANU GULCH 341 A	12.00 6.12 9.40			•	•	.02						• 67		.26	.37		.58			.43		.78	1.90			:	.58		12.00		
Electron   Fig.   Fig	KAMULUI #8 AP R KAILIILI #36 A KAILUA #46 KAUAULA INTAKE 375 A KEANUA #10	5.34 3.71 8.70	.02		.01	.08	.26			.74				*	* 01	.28		.03		.42	2.87	*	.10	.93	.01			.05 4.78		:		
Accordance of the control of the con	KEANAE 346 KEA®AKAPU BEACH 260°2 KINET 311 KIPAHULU 258 KULA HFIGHTS 323°2	6.46	-	.15	.05	• •	.25	•	•35 •05	.14	.09		:	:	.21	.02		.48	# 3.91	.70	-	-	.26	2.20	.01	:		1.12		:	2.70	•
MARKEE AFTE AFTE AFTE AFTE AFTE AFTE AFTE AF	KULA SANATORIUM 267 LAMAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPEP 442	5 • 6 8 12 • 0 0 8 • 3 3	٠	+12			.11		•07	• 42	.10				*02			.67	.63	*41			1.48	1.31		• 01		*50				
PARL OFFICE AND PARL OFFI AND PARL OFF	OLINDA 332 OLOWALU 296	6.80 7.89 6.06	T	.12			1.11	.01	.03	.60	.41		:	.01	.06			1.29	.46	.15	2.57	* †	.11	*	•	:	•	3.06	.42		10.20	:
Display And A. 2   33   4   5   68   12   12   12   10   10   10   10   10		4.77 21.90 3.34		.10		*01	.78	τ.	.08	.65 5.10 .46	1.49		:	.0*		*02	.01	• 09	*40	* 25	.74 .55	.01		1.62	16.80 .80	*	:	.08	Į	•	•	•
SUBJECT 333		5.80 14.00 6.51	:	•12	٠	.01	.22	:	:				•		* * * * * * * * * * * * * * * * * * * *	* 02	.03	.66	.82	* •31	:	.02	•	2.56	*			.67			5+80	
A HIFT VALLEY WILE WALE WALE WALE WALE WALE WALE WALE WA	UKULELE 333 A UKUMEHAME 301 A ULUPALAKUA RANCH 250 HAHIKULI 364 A	9.55 7.77 13.76	•	.14 .17	.05			:	•42	1.40			:	:	.14	*	.04	.50 1.41	3.75	2.70	•		.65 .14	3.05 2.78 3.46	.13	•	•	.20 .56		:	9.55	
15t And Of Hahall  AND MIRE JULY 18 A 3.38 AND MIRE JULY 18 A 11.23 AND MIRE JULY 18 AND MI	mAINEF VALLEY 482 mAIKAMOI 649 mAIKAMOI 0AM 336 mAIKAPU 390	7 • 1 5 4 • 9 0 10 • 0 3 9 • 1 5	Ť	.09	•	•02	.18	.01	+12	.43	.34	:	.34	.01		.06 .20	•35	1.55	1.06	.67	5.11	•01	.09	3.05	1.69	:	* * 23	.28			4.90	
ABIT 1821 A 8 11 88 15 85 15 39 200 96 169 03 1113 113 114 182 14 114 182 14 162 0.5 0.6 0.3 0.0 0.3 0.6 0.3 0.0 0.3 0	#AloPAI RANCH 256 A	8.88 10.99	.02	.19	.02	.02		•	.27	•56	.12	T					.02	1.69	.46	.49	5.45	T .	1.61	1.96	:01	•02	*17	1.20				:
**************************************	Awin1 182.1 A	8.11 11.33 1.62				* * * * * * * 5 * 1				.10	.60					.03		.39	:		*	•		.27	.05	*		.03		*11		
HIO B AIPPORT R 11.4A 1.82 .2A 8.9A .03 .04 .01 .04 .06 . T T .05 .02 T .06.4A .04 .04 .05 .07 .07 .07 .07 .07 .07 .07 .08 .10 .07 .07 .07 .07 .08 .10 .07 .07 .07 .08 .10 .07 .07 .07 .08 .10 .10 .07 .07 .08 .10 .10 .07 .07 .08 .10 .10 .07 .07 .08 .10 .10 .08 .11 .02 .08 .11 .03 .08 .11 .02 .08 .11 .02 .08 .11 .03 .08 .11 .02 .08 .11 .03 .08 .11 .02 .08 .11 .03 .08 .11 .02 .08 .11 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .12 .03 .13 .03 .12 .03 .13	HALEPIULA 117 A HALEPOHAKU 111 A HARAII VOLCNS NP HO 54	5.39	18	:	-	1.57	.31	-	.04		- 25	* T	-	•		:	:	- T	-	-	* - T		:	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * - •17	:	-	3.05	
HOUMIN MAURA 138 16.74 13 5.36 6.12 49 35 20 171 23 10 12 1.58 22 8.00 10 12 1.58 22 8.00 10 10 10 10 10 10 10 10 10 10 10 10 1	HOLIALDA 70 A	6.44 2.64 3.60	.02	.04	1.05	. 14	.02	.04	.40	.59	.04	.02	.10		٠	.02		.19	1.00		.02	•	*10	.03	.04		.08	.05 *	•	т	•	•
AAN-ALIA 29 A 3,12 0.3 * 5 * 65 * 16 T * 06 * * * * * * * 08 * 25 * 1.71 * 0.3 * 1.50 * 0.3 * 1.50 * 0.3 * 1.50 * 0.3 * 1.50 * 0.3 * 1.50 * 0.3 * 1.50 * 0.3	HUEHUE 92A A	8.00 4.40		*03	5.39	6.32				•49	.41	.20	:			*	:	:		:	1.71			.23	.10	•12	1.58	•22		8.00		•
		3.12 4.25 17.34	.03	.14	.57 6.65	•20 5.40	.65 T		+16 +32 +14	*63	.06	٠	* T *	•		.08		. 25		1.71				.45	2.66	•	т т	.02		•35		•

See reference notes following Station Inde

Continued								-			_	1 11		<i>-</i> 11	11	$\boldsymbol{\Lambda}$	11.	O1.	•											HAWA]	1 f	
	T Ta	T			-									Dav	of M	onth														FEBRU		1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIFPORT KAPAPALA RANCH 36 AAPONO LANOING 935 KAUMANA 88.1		8 T 7 •3	T 5 • 2 3 • 4	0 #	8 .3 8 .2 4.0	0 T 8 **	•40	•10		.12	_	•10			.28	.06	.62	.02	1.87 1.55	*02 T	*	T *	1.90 1.20	.06		.06 .04 .04	.67 .45 .10	T	.48 .51 .60	* 02 T	30	31
KAWAINUI LOWER 193 A KEAAU 92 KEALAKEKUA 26.2 KEMENA 181.2 A KEMENA RESERVOIR 176.1 A	13.6 2.9 11.6	0 .0°	5 .0	7 3.3	8.4			.09	.15 .02	.82 .03 .01	:	:	.01	.02	.02 e		.82 .21 10		1.64	. 1.96			.04 .26	3.72 .18 .01	*02	.01	* * *72	.22 *	* 04	11.69		
KIOLAKAA A • F 6 KIPA 89 2 A KOHALA 179A KOHALA MAULILI 176 KOHALA MISSION 175 1	4.8	3 .10	.5	2 #		. 2 5		т	1.10 .60 .60	•15 •43 •13	о т		T T	٠	**************************************	٠	.93 1.17 1.31	* * * •04	* 1.60	* 1.21 1.19 1.97	•	•	.27 .92 .82	* •16 •01 •19 •06		1.11	.07 .32 .84		.04 .07	3.29		•
KO1AWE LOWER 196 A KONA AIPPORT 68.3 KUKAIAU 222 KUKU1HAELE HIC 199 KUKU1HAELE MILL 206 A	3.1 3.6 2.3	9 3 5	.0.	. 6	0 .3	1 .16		T T	*01 *16 *11 *06	.58 T .44 .50	.15		• 02		.01 .17 .04	* T	.54 .63	* 01	.65	.38	*	*	.07 .30 .58 .45	2.77 T .20 .05			.05 1.30	.02	.02 .01			•
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68 C MANUKA 2	3.4 1.1 3.7 5.0 2.6	5 •	.0		6				.37 .04 *	.08 3.00	.01		* T	•	.07	.01	.73	•	2.14	.04 *	4	•05	.09	.29 .45 .06	.06 .14	e04	.01 .03	.10	.03 *	.09		•
MAUNA KEA PEACH MAUNA LOA SLOPE OBS MIOOLE HOLUALOA 68+1 A MIOOLE PEN 147+1 A MOAULA 18 A	3.3 1.5 4.3 3.8 10.3		.3	1.3	4 .04			•11	1.17		:	:	:	.07	.06		.35	.14	.35	:	2 • 55	• 36 •	.71 .61 1.11	.06	:	* <sup>07</sup>	.04		* 1	* 0.35		•
MOUNTAIN VIEW 91 NAALEHU 14 ANAPOPDO 28 NAULU FOREST 38.6 NIULI! 179 A	11.4 3.9 2.5 12.2 4.0		.02	1.5	8 3.99 4 1.00 5 4.45	.08	T •	.04	* 2 3 T * T * 38	.58 .04 .12	*	• • T	•05	T *	•02 •	•	•	:	:	.83 .01 1.88	e T	•05 #	T *	.86 .24 1.54	2.06 * T	*02 * T	.29 .15 .09		.05 .01 I.30	.03 .32	İ	•
OCKALA 223 OPINIMALE 2 24.1 ORCHIO LANO EST 91.5 A PAAUHAU 217 PAAUILO 221	3.3 1.9 14.7 1.8 2.8	T	2.9		9 T	3 .01		.01		.30 1.24 .71 .39	.02	.01	•	•02	.18 .01 .10	T .	.01	.89	•01	•10	T *	*20	.16 .02 .39	.03 .57 .09	•20	•04	.87 T *	.09 T .03	T T * .04	T *		•
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144.1 PAPAIKOU MAUKA 140.1	10.6 8.8 9.0 13.3 14.8			1.2	2 8 4 9 2 7 0 0	53	.05	.02		3.37	e T	* T			•				•	.01 * 1.27 1.24	•	.02	.01 .74 .19	.15 .17 .09		.02 e .86 2.25		1.37 .72 * .07	.07 .16			•
PEPEEKEO MAKAI 144 PIIHONUA 89 A POHAKULOA 107 A PUAKO 95.1 PUU KIHE 120 A	10.7 8.6 1.7 2.7 2.7		•0		7 5.39	.59			.40 .54	.03	* 06			.02	.08		• • 43	:	.36	.19	:		.60	•12 • • •06	1.09	1.01	.02 .02 .02	07		8.60		•
PUU LAAU 102.1 A PUU LEHUA 73 A PUU MALI 113 A PUUOKUMAU 167 A PUU 00 82	3.1 3.6 2.0 9.0 2.6	.02	.01	* * * *	0 1.27	.54		:	* * 1.09	.17	•	*	.01	.01	* * • 32 • 05	.02	* * 2.11	•	.03	* * 1.94	•	•	* * 1.34 .10	* * •29 •37	* * * * * * * * * * * * * * * * * * * *		* * 1.10 .02	.02		3.15 3.60 2.07		•
PUU HAAWAA 94.1 A SAOOLE ROAD 1 84 A SOUTH POINT CORRAL 3 A UMIKOA 118 UPOLU POINT USCG 159.2	7.20 2.41 2.41	:	1.17	1.1:	4 .28		.02		.05 * .46 1.18	.20 4.90	.84 .10	*	:	:	.13 .17	:	.11	.07	2.01	:	:	:		2.53	:	* •15 •32	.20 .22 .19	.25 .11	T * * •04	:		:
WAIAKEA SCO 88.2	8 . 71	·	.02	1.7	7 5.46	.06		•02											т	.30			.18	.03	•58	.20	.06	.10			}	•

### SUPPLEMENTAL DATA

		(	Wi Speed -	nd m.p.h.	.)		Relati	ve hum	idity ave	rages -		Num	ber of d	ays with	precip	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 Am	TH MER!	DIAN TI 2 PM	ME A PM	Trace	6010.	.1049	.50–.99	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WR AIRPORT	18	1.0	7.2	22	SE	20	86	74	66	83	3	8	2	0	1	1	15	42	5.6
HONOLULU, OAHU, WE ATRPORT	22	3.2	6.0	32	SW	15	82	81	65	76	6	2	4	2	0	0	14	75	4.5
KAHULUI: MAUI. WR AIPPORT	19	4 • 1	9 • 1	30	sw	15	92	91	75	88	5	5	6	1	0	1	18	60	4.6
LIHUE, KAUAI, WA AIRPORT	23	6.7	9.6	3.8	SW	20	92	89	68	€4	6	7	2	1	0	1	17	63	4.7

HAWAII FEBRUARY 1968

																Day	Of Mo	onth															age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
15LANO "F KAUA1																																	
ANALOHULUHULU 1075	MAX	66	65 44	66	68	68 42	69	68 38	64 53	64	64	63 47	62 55	67 47	62 47	60 57	58 51	56 52		62 53	63 58	61 56	61 45	67 41	64 45	59 55	65 44	62 47	67 52	62 51			63.7 48.0
ALLAUEA POINT 1133	MAX	75 65	79 62	75 62	81 67	81 66	18	84 62	80 65	74 64	76 64	79 63	82 61	85 62	84 67	85 63	78 66	76 64	83 62	82 64	85 68	78 62	8 O 6 I	83 55	84 64	80 62	81 60	81 65	81 66	79 69			80.4 63.7
THUE WE AIRPORT	MAX M1N	76 57	76 60	75 62	77 60	77 58	76 60	76 57	76 60	73 57	75 56	78 61	75 65	75 63	79 64	78 68	73 61	77 61	79 58	79 67	81 71	78 59	74 58	76 57	79 58	81 60	74 57	78 58	81	7 A 6 3			76.9 60.8
MAKAHUENA POINT	MAX	81 62	79 65	79 65	79 65	82 63	8 2 6 3	82 63	8 2 6 5	83 64	82 61	8 I	82 64	80 68	83 67	8 2 6 7	79 68	79 69	79 63	83 70	83 71	85 68	80 63	80 63	82 63	84 65	81 60	80 62	83 72	85 68			81.4 65.2
MANA 1026	MAX M1N	78 62	78 59	79 64	82 65	80 63	80	81	80 64	78 6 I	78 63	78 65	8 I 6 4	78 63	8 2 6 5	83 67	80 63	78 64	75 63	78 63	80 70	78 68	78 60	78 61	77 56	80 58	83 61	77 59	80 61	81 62			79.3 62.6
1U R10GE 1035	MAX	75 59	76 60	78 63	80 63	78 60	80 60	80 59	79 60	75 59	77 60	78 61	77 59	75 60	80 64	78 62	77 60	76 60	75 59	77 64	77 65	75 60	74 59	77 60	78 60	78 60	76 57	76 59	76 65	77 63			77.1 60.7
AAIAHI LOWER 1054	MAX	77 53	78 58	78 58	78 56	7.8 5.3	80	8 I 5 I	79 55	78 51	79 50	79 55	76 56	79 60	78 58	78 66	78 64	78 58		81 66	но 67	81 65	82 53	80 53	80 52	84 64	84 66	80 52		77 59			79.2 57.3
e R R																																	
ISLAND OF CAHU																																	
WA PLANTATION 741	MAX	81 59	18	79 63	8 I 6 2	83 59	83	82 60	82 59	80	79 58	81 58	80 61	81 63	80	77 62	77 66	80 67		79 63	82 69	78 70	83 60	84 61	82 60	81 61	79 60	8 1 5 9	82 61	8 l 6 l			80.7
MONOLULU WEAP 703	MAX	82 64	80 66	82 68	79 66	80 66	82	81 68	82 63	80 °	77 62	81 64	82 68	80 66	82 66	80 69	78 68	80 69	79 64	79 71	81 73	79 68	80 63	82 64	82 65	83 69	79 62	8 1 6 4	8 2 6 8	81 65			80.6
ONOLULU SUBSTA 704	MAX MIN	78 65	79 67	79 68	79 66	80 68	81	78 66	81 66	77							76	77 69		77 69	79 73	77 69	78 67	79 68	80 68	79 68	75 66	78 67	78 70	78 69			78.3 67.6
AHUKU 912	MAX	78 61	78 62			79 60	79 60	78 60	79 60	78 62			84 56	83 61	78 58	83 59	81 66			80 63	86 67	87 68	8 2 6 1	78 61			81 59	77 58	83 59	81 60			80.6
ANEOHE MAUKA 781	MAX MIN	79 61	78 64	79	78 65	78 64	79 65	80 66	79 65	79	76 61	79 61	77 64	77 66	69 67	78 68	77 70	76 71	78 66	78 67	76 74	79 71	79 65	78 65	78 65	81	82 62	76 62	79 65	82 65			78.1 65.6
MAKAPUU POINT 724	MAX	75 67	75 67	77 67	76 71	80 69	77	77 70	75 69	75 65	75 66	76 66	76 67	78 68	80 68	77 68	72 69	75 69	76 68	77 69	76 70	75 66	75 72	78 67	74 66	77 69	78 68	74 65	78 69	79 70			76.3 68.0
PAEULA 870	MAX	78 56	76 59	75 60	76 60	78 56	79 56	79 56	78 58	75 57	77 58	75 55	78 65	77 62	75 61	78 63	72 63	74 65	72 60	77 63	76 66	78 67	72 58	77 57	68 60	80 59	76 59	76 58	79 60	79 58			76.2 59.8
PRI WAHIAWA 820.2	MAX	. 80 56	80	80	76 60	82 57	81	83 55	80 56	78 56	76 54	80 56	79 53	75 60	79 57	80 57	77 65	72 65	76 60	79 60	71 67	80 69	76 59	82 57	83 57	82	82 56	80 56	80 59	80 57			79.1 58.8
AIALUA 847	MAX	80 57	80 62	79 63	79 65	79 61	80 56	79 56	78 58	79 59	76 58	78 57	76 60	82	78 58	81	8 2 6 6	78 67	79 65	83 63	85 62	84 70	80 59	77 59	78 60	86 59	79 62	75 58	92 61	80 60			79.7
A1K1×I 717.2	MAX	82	82 63	82 62	84 65	82 63	84	84 67	82 59	85 59	8 2 5 7	8U 60	83	82	82 62	84	81 68	79 69			80 70	8 3 70	79 61	85 63	84 62	83 70	82 58	83	83	84 62			82.4
ISLAND OF MOLOKAL																																	
OLOKAI AP 524	MAX	77 64	75 64	79			79 62		77 62					78 65	78 64	78 60			73 69					76 68		79			73 64	80 62			76.9
p p e																																	•
ISLANO OF LANAI																																	
ANAI CITY 672	MAX M1N		79 61	79 63	79 63	78 64	77 65	75 65	79 58	76 60				75 60							75 62			76 61				77 59	77				76.5 61.0
																O.E.						00		0.			,	- 7	- 77	30			01,0
ISLAND OF MAUI																																	
MALEAKALA R5 338	MAX	57 37	52 38	58	60	59 39	58	57	54	56	56 40	58	57	60	55	59	56 44	55 44	49 42	59	59 49	62 46	54 41	58 46	60	57	6 I 45	58 45					57.6 43.1
MALEAKALA SUMMIT 330.4	MAX	45	45		46	51	51	51	46	48		50	51	50	42	52	43	43	44	51		42	44	50	51	51	47	67	50	58			48.4
ANA AIRPORT	MAX MIN	78	77	79	78	79	80	81	78	78	77 59	79	79	83	81	84	86	83	81	82	84	83	74	80	80	82		76	80	83			35.3 80.3
AHULUI W8 AP	MAX	77	78	79	80	79 64	80	74	79	76	76	7.8	79		79				78	79		74	78		80		77	80					78.2
AILUA 446	MAX M1N	75	74 58	77		79	78		78	78	79	79	78	82 55		78	68 82 58	83	82	83			83	83	83	83		74	77	00			80.0
ULA SANATORIUM 267	MAX	66	64	69	71		69	71	71	72	66	67	70	71	71		66 58	58 78 58		69	60 75	79	63 81	69	57 70	72		71	72	70			70.3
AMAINA 361	MAX M1N	81	78	81	79	81	81	81	77	8.2	8.2	80	80	8.1	80	81	79	79	79	80	82	81		83	84	83	57 77		82				55.9 80.4
ALLUKU 392	MAX M1N	79	77	81	82	85	81	82	75	81	79	80	8.2	81	82	65 84	79	67 82	81	69 81	65	84	7.	u 1	81	0.3	79	0.1	0.3	84			80.9
	•		52	U.E.		00	0.6	01	0.6	0.3	0.1	00	65	04	61	01	69	69	69	/0	6.8	69	68	68	66	69	62	64	65	65			65,3

D WILLS	THE ADDED	T III TID TO
DAILI	I FJVI P F. R	AT IIRES

Continued		_							D	MI	пт	1.	LIV.	IFI	JN1	7.1	Un	E	)												FEBR	JARY	1968
Station																Day	Of M	onth															age
Siation		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
* * *								1					-																				
15LANO OF HAWA11																																	
HAINA 214	MAX	75 59	78 56	77 60	75 59	78 63	78 63	80 64	80 64	76 60	73 56	75 57	76 58	80 65	78 63	81	86 64	82 60			83 61	82 64	82 63	82 61	80 59		83 64	73 61	80 66	81 63			79.2 61.4
HAWAII VOLCNS NP HO 54	MAX M1N	66	64 48	65 53	63 56	64 52	68 54	64 53	69 53	66 54	62 46	67 47	68 51	66 47	69 50	69 45	73 45	73 49		69 55	72 50	73 58	65 56	65 50	71 53	69 52	64 52		68 57	71 58			67.4 51.7
HILO WB AIRPURT	MAX	82 62	84 64	73 69	68	81 66	85 67	90 66	79 70	80 66	80 64	81 60	86 61	85 62	84 65	83 63	86 64	86 62	87 69	83 63	92 65	86 66	87 69	86 64	86 66	9 I 64	80 70	85 68	83 68	89 66			84.3
KAINAL1U 73B	MAX	75 59	74 57	74 62	73 62	77 60	78 63	79 64	77 61	77 59	75 58	75 60	77 57	79 58	76 60	75 59	77 60	78 63	73 63	79 60	83 62	80 66	81 65	78 63	79 63	78 62	76 62	78 62	80 62	80 62			77.3 61.2
KAMUELA 192.2	MAX	73 50	74 44	74 47	74 50	76 50	75 53	76 57	75 58	74 56	70 46	75 48	71 44	72 47	72 55	73 54	72 56	72 57	70 56	73 54	76 47	78 50	75 54	78 56	77 50		78 56	75 5 [	73 54	77 49			74.3 51.8
KAMUELA AIRPORT	MIN	7 I 40	70 39	68 43	74	74 50	75 45	70 44	70 48	69 45	70 43	73 50	74 51	71 46	7 1 4 7	73 49	70 45	70 51	71 52	74 54	75 45	76 41	74 49	76 54	75 51		75 48	74 56	72 56	75 50			72.6 46.0
KEAAU 92	WIN	81 60	79 61	81 65	81 65	81 65	81 65	83 63	85 62	80 65	83 58	83 58	83 58	84 60	83 60	82 62	84 63	89 63	89 63	89 63	89 61	8 g 6 Z	89 67	84 63	87 61		87 61	76 65	81 65	84 68			83.9 62.5
KEALAKEKUA 26.2	MAX	77 60	74 58	74 63	75 62	79 62	80 63	8U 64	79 62	77 61	78 60	77 61	78 59	79 60	77 62	79 60	79 61	79 63	77 63	80 62	75 59	82 59	80 58	79 58	80 58	79 63	77 62	79 62	80 63	82 64			78.3 61.1
KOHALA M15510N 175.1	MIN	77 62	76 61	78 60	77 64	80 64	78 64	79 67	79 66	78 64	75 60	77 61	79 62	80 67	80 65	81 66	78 65	78 68	78 66	81 64	84 64	83 64	81 66	80 66	81 64	78 65	79 66	79 65	82 67	79 63			79.1 64.3
KONA A1MPORT 68.3	MAX M1N	8 1 6 1	80 64	79 64	76 63	80 64	82 67	81 66	82 68	78 64	80 64	81 66	80 65	83 66	83 64	81 64	82 66	8 l 6 4	76 64	80 65	83 64	83 69	83 69	80 66	83 67	82 65	82 66	83 68	84 68	84 66			81.I 65.4
KULANI CAMP 79	MAX	60 40	60 42	65 52		66 44	65 46	64 46	68 52	62 45	55 38	64 39	55 39	66 41	42	65 42	69 43		70 43	68 42	68 47	72 52	68 48	73 46	65 44	66 42	70 43	67 46	69 48	69 55			65.7
MAUNA KEA BEACH	MAX	82 65	81 64	78 66	78 66	83 67	86 68	85 70	85 68	81 65	84 69	81 65	83 64	83 66	81 66	81 69	84 67	81 68	80 66	86 67	90 66	87 70	83 68	86 67	84 66	85 67	82 67	84 68	87 72	87 67			83.4 67.0
MAUNA LOA SLOPE OBS	MAX M1N	40 27	41 30	43 34	45 34	47 29	47 30	49 31	50 31	46 30	47 30	50 32	48 33	48 32	55 37	4.8 3.5	51 34	43 31	52 36	58 39	57 40	55 38	48 34	4.8 3.4	51 34	52 37	53 38	62 41	60 41	58 38			50.1 34.1
MOUNTAIN VIEW 91	WIN	78 52	76 53	75 58	73 62	77 63	78 57	78 59	80 59	74 60	71 53	75 54	79 53	80 52	80 54	78 55	79 53	82 54	80 61	77 58	81 58	83 58	8 Z 6 3	75 58	80 5 <b>7</b>	78 58	80 63	70 59	75 58	79 63			77.7 57.4
NAALEHU 14	MAX M1N	77 65	78 67	78 67	80 65	80 65	81 66	81 63	80 63	77 64	77 64	79 61	79 61	79 61	81 63	80 62	79 61	79 61	80 62	80 62	83 66	83 68	81 68	77 66	77 66	81 65	81 65	7 g 6 3	78 64	79 68			79.4 64.2
OOKALA 223	MAX M1N	78 54	77 57	78 56	75 56	79 60	79 60	81 62	80 62	78 61	74 56	78 57	80 60	81 58	78 57	8 2 5 8	82 57	82 56	81 58	82 62	82 62	80 60	82 60	83 60	82 68	80 62	83 64	75 59	82 58	83 62			79.9 59.4
OPIHIHALE 2 24.1	MAX M1N	77 56	74 57	72 59	76 58	66 58	73 60	77 58	76 57	74 56	75 56	75 53	77 53	75 56	76 57	78 57	80 56	77 57	80 57	80 58	85 58	83 62	76 61	79 60	80 57	78 58	78 60	78 60	80 60	78 60			77.0 57.8
PAHALA 21	MAX	78 58	78 61	76 63	71 62	76 63	8 1 6 2	79 63	80 63	76 60	77 57	78 59	78 59	79 58	80 58	79 59	84 60	84 61	86 57	83 60	81 61	83 64	77 66	75 64	8 l 6 Z	78 64	81 64	73 64	77 64	79 64			78.9 61.4
UPOLU POINT USCG 159.2	MAX	80 65	81 67	80 66	80 67	82 68	82 67	82 69	82 69	82 67	81 66	82 66	80 61	82 68	82 66	82 69	81 67	80 66	77 66	81 68	85 68	85 72	8 l 6 7	81 69	82 68	82 69	82 69	82 68	86 70	82 69			81.6 67.5

### EVAPORATION AND WIND

Station																Day	Of M	lonth															lal g.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
15LANO OF KAUAI																																	
LIHUE WB AIRPORT	EVAP W1NO MAX M1N	42 77	78 82	59 80	84	74 83	70 82	75	84		64 78	80 81	118	68 79	61 82		163 81	153 74	106	126	155	237 84	61 82	57 85	65 85	77	61	65 83	*	203			6.18E 2746 81.9 58.8
15LANO OF DAHU																																	
HONOLULU OBSERV 702.2	EVAF W1NO MAX M1N	20 86	19 87	13	16	15 92			12	20 87	.14 18 87 61	8 8 9	25 89	13	10	.17 32 92 66	28 85	19 81	89	19 92	25 85	33	15 82	11 88	14 94	16 95	92	92	94	9 96			3.85 523 89.2 65.0
* * * 15LANO CF HAWA11																																	
HILO WB AIRPORT	EVAP WIND MAX MIN	49 76	71 78	71	79	30 83	85	75 85	54 80	72 80	60 85	60 85	66 84	.23 54 85 59	80	53 87	63 86	65 84	•20 74 85 67	51 90	104 88	74 86	42 82	8 Z	80 85	106	95	4 0 8 6	57 87	78			5.11f 1848 83.5 64.3

### STATION INDEX

NO. NO	<b>←</b>	1.1	IDE	N O	OBSERV TIME	AND			NO.		∴ 35	DE	UDE	NOL	T	SERV <i>I</i> IME <i>I</i> TABL	IND		PEBROAN 1768
STATION ODIATES	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	SPECIAL SPECIAL	OBSERVER	STATION	INDEX NO.	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.			SPECIAL dez mortan	OBSERVER
SLAME OF KAUAI  ALIZANUE RESV. 983 ANHOLD 1111  8 TOLS-000 STA 805 A 0240 07 AUCOA  EAST LAAR 1934 A 0260 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 0270 07 AUCOA  EAST LAAR 1934 A 1038 07 AUCOA  EAST LAAR		2 21 57 1 27 09 2 21 56 2 21 55 2 22 06 2 21 54 1 22 07 2 1 58 1 22 05 3 21 59	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28 159 41	1610 116 720 440 350 163 253 490 1218	7A 7A 7A 6A 7A 8A	c	MC BRYDE SUGAR CO. LIMUE PLANTATION CO MC BRYDE SUG CO LITO MC BRYDE SUG CO LITO MC BRYDE SUG CO LITO MC BRYDE SUG CO LITO MC BRYDE SUG CO LITO GROVE FABR CO LITO SIHUE PLIN CO LITO EXEANA SUGAR CO LITO	ISLAND OF LANAI  KANEPUU 690 A KAUMALAPAU HARBOR 658 A LANAI CITY 672 A LANAI HALE 684 A MAHANA 694 A MAHANA 694 A MAHANA 694 A MAHANA 694 A MINERANUA 685 A	3461 0 5286 0 5301 0 5704 0 6012 0 9021 0	1 LAHAINA 1 LAHAINA 1 LAHAINA 1 LAHAINA 1 LAHAINA	1 1 1 1 1 1	20 47 20 50 20 49 20 53 20 46 20 47	157 00 157 00 156 55 156 53 156 55 156 55 156 55	1640 30 1620 3370 1430 1135 2040	7A	WI 8A 7A WI MO WI WH	000		DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY
HULIPO 969  1111-ULA INTARE 1090 1111-E WINHAR E WINHAR DE 1050 1111-E WINHAR E WINHAR DE 1050 1111-E WINHAR E WINHAR DE 1050 1111-E WINHAR E WINHAR E 1050 1111-E WINHAR E WINHAR E 1050 1111-E WINHA		2 22 02 1 22 09 1 22 11 3 22 08 1 22 08 1 22 08 1 22 06 3 21 58 1 22 13 1 22 13	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25	1070 690 400 3600 800 175 9 317 415	7A 41 7A 84 8A 7A 7A 8A 6A 7A	0 0 00	LIHUE PLIN CO LTO NC BRYOE SUG CO LTO KILAUEA SUG PLIN CO KANALUHULUHULU R. S. LIHUE PLANTATION LIHUE PLIN CO LTO LIHUE PLIN CO LTO KEKAHA SUGAR CO LTO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	HALEAKALA RANCH 432 A HALEAKALA RS 336 HALEAKALA SUMMIT 338+4 HALEHAKU 492+2 HALIIMAILE 423 HAMAKUAPOKO 485	0790 0 0995 0 0999 0 1004 0 1016 0 1075 0	4 LAMAINA 4 LAMAINA 1 MAKAWAO 1 MAKAWAO 2 MAKAWAO 2 MAKAWAO 2 MAKAWAO 1 MAKAWAO 1 MAKAWAO	1 1 2 2 1 1	20 37 20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 52 20 55	156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8A 8A	7A 6A 8A 8A 5A 5A	00 00	S	ULUPALAXUA RANCH HAJI PINEAPPLE CO. MAGUI PINEAPPLE COMPANY U OF HAWAII EXP STA HALEAKALA RANCH CO HALEAKALA NAT PARK U OF MICH MT HKALA OBSY PHIL SCOTT HAJI PINEAPPLE CO. HAMAHIAN COM + SUG CO HARRY HASEGAMA
ASLAUGA POINT 1133 4568 01 MANALEI  KITANO 1077-1 4658 01 MANALEI  AGUO 1033 4773 01 MAINGA  AGUO 1033 4773 01 MAINGA  AGUO MAUNA 1974 4775 01 KOLOA  AGUO MAINGA 1137 AGUO 1137 01 KOLOA  AGUO MAINGA 1137 AGUO 1137 01 KOLOA  AGUO 1137 01 KOLOA		1 22 14 22 02 22 04 21 55 21 58 1 22 11 2 21 54 22 01 22 01 22 05 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23	180 2150 36 240 640 737 100 375 207 103	8A 8A 7A 8A 7A 7A 6A 7A 7A MID MID	C BAC J	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO. LTO GROVE FARM CO LTO GROVE FARM CO LTO KILAUEA SUG PUTN CO HC BRYDE SUG CO LTO HAWAIIAN SUGAR PL ASSN LINUE PLTN CO LTO U S WEATHER BUREAU	HONOKOHAU 480 A HONOKOHUA 493 A	1882 0 1887 0 1914 0 1935 0 2208 0 2453 0	I HANA I HANA I HANA Z MAKAWAC LAHAINA LAHAINA LAHAINA I MAKAWAC J WAILUKU LAHAINA	1 1 2 4 4 4 1 3	20 45 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 59 20 54	155 59 156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 33	120 61 325 6930 870 135 125 6280 1100 650	11A	11A 7A MO MO 6A Ho		S	HARRY HADEGAWA HAWAIIAN AIRLINES KOALI RANCH HALEAKALA NATL PARK RGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO STATE DIVISION OF PARKS EDWARD CHANG PIONEER HILL CO LTD
HARAHUTNA POINT		2 21 52 21 55 3 22 02 2 1 55 3 22 02 2 1 55 2 2 07 1 22 11 2 22 04 2 22 04 2 22 04 2 22 04	159 27 159 38 159 46 159 28 159 36 159 20 159 30 159 44 159 28 159 26	52 140 11 300 3500 330 5075 1250 1110 650	8A 8A 7A 9A 9A MID 7A 6 6A 7A		U S COAST GUARO OLOKELE SUGAR CO EKERAHA SUGAR CO LTO GROVE FARM COMPANY U S GEO SORVEY LIMUE PLANIATION CO. SU S. GEO. SURVEY KEKAHA SUGAR CO LTO LIMUE PLIN CO LTO LIMUE PLIN CO LTO	KAHULUI WB AP R KAILIILI 436 AP KAILUA 446 KAUAULA INTAKE 375 KAUPO RAKKH HOUSE 259 KEAHUA 410 KEANAE 346 KEANAEAPU BEACH 260.2 KIHEI 311 KIPAHUILI 258	2572 0 2630 0 2679 0 3433 0 3576 0 3910 0 4091 0 4489 0	3 WAILUKU 1 MAKAWAO 1 MAKAWAO 4 LAHAINA 2 HANA 3 MAKAWAO 1 HANA 2 MAKAWAO 3 WAILUKU	3 1 1 4 2 3 1 1 2 3 3	20 54 20 51 20 54 20 53 20 39 20 52 20 50 20 42 20 47	156 26 156 16 156 13 156 38 156 08 156 23 156 10		7A	MID MO 7A WI 5A Mn 8A 7A	c	5	U S WEATHER BUREAU E MAUI IRR CO LTO E MAUI IRR CO LTO PIONEER MILL CO LTO KAUPO RANCH HAWAIIAN COM + SUG CO E HAUI IRR CO LTO A. L. CORELL HAWAIIAN COM + SUG CO KIBAHULU CATTLE COMPANY
PH #AINIHA 1115 8155 01 MANALE! PRINCEVILLE RANCH 1117 8155 01 MANALE! PRINCEVILLE RANCH 1117 8157 01 MANALE! PRINCEVILLE RANCH 1117 8157 02 MANALE! PRINCEVILLE RESERVOIR 6 1004 8157 02 LINUE WAINIAMA 930 4 8947 02 KOLOA #AINIAMA MOUNTAIN 990 4 9949 02 KOLOA #AINIAMA MOUNTAIN 990 02 LINUE WAINIAMA 9978 02 LINUE WAINIAMA MOUNTAIN 990 02 LINUE WAINIAMA WANALE W		1 22 12 1 22 13 3 22 01 2 21 58 2 21 57 2 22 04 2 21 54 2 21 58 2 21 58 2 21 58 2 21 58 2 21 58	159 29 159 42 159 24 159 27	101 295 1660 329 420 740 215 2100 565 780	6A 7A 71 8A 7A Mr. 6A 6A 8A	7.	HC BRYDE SUG CO LTO PRINCEVILLE RANCH KEKAMA SUGAR CO LTO GROVE FARM CO LTO GROVE FARM CO LTO LIHUE PLANTATION CO. MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO	KUKUJ 380 KULA HEIGHTS 323,2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372A LUPI UPPER 442 MAHINAHINA 466 MOKJPEA 475	5003 0 5006 0 5177 0 5404 0 5408 0 5665 0 5715 0	4 LAHAINA 2 MAKAWAO 2 MAKAWAO 4 LAHAINA 4 LAHAINA	44	20 54 20 47 20 42 20 53 20 51 20 51 20 53 20 57 20 59	156 35 156 19 156 22 156 41 156 37 156 39 156 15 156 40	5786 2520 3004 1280 220 1240 715	7A 7A	6A 7A 7A VAR 7A MO 7A	c		MAUI PINEAPPLE CO KENNETH MILLER KULA SANATORIUM PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD E MAUI IRR CO LTD MAUI PINEAPPLE COMPANY
### A1   9-3   9253   MAHHA ### A1   9467   92   1414   9467   92   1414   9467   92   1414   9467   92   9467   92   9467   92   9467   92   9467   92   9467   92   9467   92   9467		3 21 59 2 27 02 3 21 57 2 21 54 3 21 25 2 21 19 3 21 25 1 21 39	159 21 159 41 159 31	10 50 20 210 455 20 680	8A 7A 8A 6A 7A 9A 6A		NEKAHA SUGAR CO LTO LIHUE PLANTATION WAINEA SUG MILL CO MC BRYDE SUG CO LTO  WAIAHOLE WIR CO LTO BOARO OF WIR SUPPLY DEL MONTE CORPORATION	OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 AP PAAREA 306 PAILE HULLU 259.2 A PAUVELA 490 POWAKEA BRIDGE 307.2 POLIPOLI SPRINGS 267.2A	7040 0 7059 0 7066 0 7194 0 7566 0 7674 0 7857 0	MAKAWAO LAHAINA LAHAINA HANA WAILUKU HANA MALUKU HANA MALUKU MAKAWAO WAILUKU MAKAWAO	4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 48 20 49 20 51 20 49 20 55 20 41 20 55 3 20 49 2 20 41	156 17	800 1260 170 3570 489 161 6150	7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VAR 7P MO 6A 6A WI 7A 6A VAR	£		MAUI CO WATER OEPT PIONEER MILL CO LTO E MAUI IRR CO LTO E MAUI IRR CO LTO KAUPO RANCH CO HASENOT PINEAPPLE CO. WAILUKU SUGAR CO STATE DIV OF FORESTRY E MAUI IRR CO LTO
COCONUT ISLAND BAG-1   0359 01 KOOLAUP   0480 02 HONOLUU   0480 02	KO	1 21 39 1 21 26 2 21 21 3 21 21 2 21 23 5 21 33 3 41 24 3 21 19 2 2 2 1 19 2 2 1 19 2 2 1 19	157 47 157 50 158 02 157 54 158 00 158 06 158 00 157 55 157 52	1.2	8A 7A WI- VAR 9A MIO MID MIO MID	C C C C C C C C C C C C C C C C C C C	RICHARD COBURN U OF HARINE LAB J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY WAI ALUA AGR CO LTO H. V. VON HOLT U S COAST + GEODETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU	PUU KUKUI MAKAI 472 A PUU PAKI 396 PUU PAKI 352 SPRECKESVILLE 400.2 TWIN GATES 261-3 A KULLELE 333 A UKUHEHAME 301 A ULUPALAKUA PANCH 25U WAHIKULI 364 A	8444 0 8543 0 8553 0 8688 0 8742 0 8750 0 8760 0 8750 0	4 LAMAINA 3 WAILUKU 1 HANA 3 WAILUKU 3 MAKAWAO 1 MAKAWAO 4 LAMAINA 2 MAKAWAO 4 LAMAINA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20 55 20 53 20 46 20 54 20 46 20 46 20 48 20 39 20 54	156 38 156 27 156 03 156 25 156 23 156 15 156 35 156 24 156 40	2500 60 2160 81 1310 5230 75 1900 580	000000000000000000000000000000000000000	MO 7A 8A VAR MO 7A 8A 8A	c	S	PIONEER MILL CO LTD HAWAIIAN COM + SUG CO EAST MAULI IRRIGATION CO HAWAIIAN COM + SUG CO KAONOULU RANCH HALEAKAIA RANCH CO PIONEER MILL CO LTO ULUPALAKUA RCH CO LTO PIONEER MILL CO LTO
H 5 P A EXP 5TA 707 KANALAKE 1724-6 KANANAN 883 KANUSU 912 KALLUA FIRE STA 791,3 KALHI H 65 SITE 777 KANHAM 724-7 KANUSH 7	A KO KO	2 21 18 1 21 31 1 21 41 1 21 24 2 21 23 1 21 19	157 50 157 43 157 54 157 57 157 45 157 50 157 41 157 49 157 47 157 54	50 10 800 25 10 910 1380 225 365	8A 8A 8A 9A 910 7A 7A 8A	0 00 0	H S P A EXP STATION MRS, MILLIE ZAPATA WAJAHOLE WIR CO LTD KAHUKU PLIN CO KAILUA FIRE STATION BOARD OF WIR SUPPLY HAWAII NATIONAL GUARD STATE HOSPITAL KANEOME RANCH CO GEORGE H-S WHIFT	WAIKAPU 390 WAILUKU IRI 348 WAILUKU 392 WAIDPAI RANCH 256 ISLAND OF HAWAII	9315 ( 9332 ( 9335 ( 9376 ( 9460 ( 9484 ( 9765 (	3 WAILUKU 4 WAILUKU 11 HANA 11 MAKAWAO 13 WAILUKU 11 HANA 13 WAILUKU 14 HANA	1	20 55 20 57 20 52 20 49 3 20 52 20 48 3 20 54 2 20 38	156 31 156 32 156 12 156 14 156 31 156 09 156 30 156 12	320 300 1200 4320 470 2630 200 220	0 0 0 0 0 0 8 0	6A WM VAR 6A BA OC		S	WAILUKU SUGAR CO WAILUKU SUGAR CO E MAUI 1RR CO LTO MAUI COUNTY WTR OEPT WAILUKU SUGAR CO EAST MAUI 1RRIGATION CO ST. ANTHONYS BOYS SCH MALEAKALA RANCH CO
KARALAMA 773 A J268 02 HONOLUL KARALAMAPI 861 80-22 J741 03 MAJALUA KARALI INT INTAKE 80-22 J741 03 MAJALUA KEMU, CAMP 8 855 A 766 03 MAJALUA KUMLUKALE 804 576 04 MAJALUA LUMLUKALE 804 5670 04 MAJALUA LUMLUKALE 804 5670 04 MAJALUA	k0	2 21 21 5 21 35 5 21 34 1 21 40 5 21 33 5 21 30 4 21 26 4 21 29 1 21 24 2 21 17	157 52 158 11 157 59 158 00 158 05 157 58 158 08 158 08 157 49	614 200 1180 1050 725 1160 113	8A 7A WI 7A 8A 7A	, c	KAMEMAHEHA SCHOOLS WAJALUA AGR CO LTO WAJALUA AGR CO LTO WAJALUA AGR CO LTO WAJALUA AGR CO LTO C+ F OFFICER HEOG USN AMMUNITION OEP  U S NAVY WILNOR LUM	AWINI 182.1 EAST HONDKANE 183.2 HAINA 214 HAKALAU 142 HALEHAUMAU 52 HALEPULA 117 HALEPOHAKU 111 HAWAII VOLCNS NP HO 54	0190 0450 0840 0905 01033 041060 01065 01303	N KONA N KOMALA N KOMALA N KOMALA N KOMALA N HAMAKUA N KAU N HAMAKUA N HAMAKUA N HAMAKUA N KOMALA		5 19 38 20 10 20 07 20 06 2 19 54 3 19 24 1 19 56 2 19 46 2 19 26 1 20 14	155 43 155 43 155 28	5221 1871 4241 46 10: 3641 5771 9221 397 601	0 0 1: 7A 5 8 0 0	MO MO MO			GREENWELL RANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD HONOKAA SUGAR CO PEPEEKEO SUGAR CO HAWAII NAT PARK KUKAIAU RANCH CO STATE DIV. OF PARKS HAWAII NAT PARK KOHALA SUGAR CO
LUMALIO MOME 724-2   5575 0 MONOCUL MARANA KA 1796   3 FORO 0 WALANAE ARANA VALLEY BOOL 1 A 5781 0 WALANAE ARANA VALLEY BOOL 1 A 5781 0 WALANAE ARANA VALLEY BOOL 1 A 5781 0 WALANAE ARANA VALLEY BOOL 1 A 5781 0 WALANAE ARANA VALLEY BOOL 1 A 5781 0 WALANAE ARANAE WALANAE ARANAE WALANAE W	IKO .	2 21 17 4 21 28 4 21 29 2 21 19 2 21 19 2 21 20 1 21 21 2 21 21 4 21 31 2 21 21 2 21 21 2 21 21	157 46 157 54 158 09 157 49	40 25 160 538 220 650 410 20 4025 1048	7A 7A 8A 8A 8A M10 9A	¢	LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARD MRS.JOHN H.BEAUMONT BOARD OF WIR SUPPLY EXP. STA. H.S.P.A. JOHN A ROXBURGH FEDERAL AVIATION AOM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY	HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181-1 HONOMU MAUKA 138 HONUAULA 71 HUALALAI 72	A 1557 ( A 1562 ( 1665 ( 1701 ( A 1864 ( 1960 ( A 2047 ( A 2151 (	22 S HILO 24 N KONA 24 N KONA 24 S KONA 22 N HILO 22 N HILO 23 S HILO 24 N KONA 24 N KONA 24 N KONA		19 56 20 09 2 19 51	155 55 155 59 155 53	3221 108 300 800 1100 6250 8191	900000000000000000000000000000000000000	MIO 7A 7A 7A 7A MO MO 6A	C MIDC	J	U S WEATHER BUREAU VARIOUS RANCH HANOS MERICALE SUCHA COMPANY KOHALA OLICH COULTO PEPERKEO SUCHA COMPANY STATE DIV OF FORESTRY STATE DIV OF FORESTRY HUEHUE RANCH
NJUMNU RESERVOJE 5 775A 6033 03 MONOLULO PAGULA 677 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	IA.	2 21 21 5 21 34 2 21 20 2 21 21 3 21 25 2 21 17 5 21 28 1 21 35 2 21 19 1 21 22	157 50 158 02 157 46 157 48 157 58 157 43 158 01 157 54	410 1060 995 1640 240 6 700 20 360 488	7A 7A 7A M10 M10 7A 8A 8A 8A 7A	N. N. V	BOARD OF WIR SUPPLY WHALALUA AGR CO LTO BOARD OF WIR SUPPLY JAMES MUMEND MRS ALFRED FRANCO JR. PINEAPPLE RESEARCH INST KAHUKU PLIN CO NAT MEM CEMETERY REV R CULLINAN	KAALA 1KI 12 KAAMALOA 29 KAHIAWA1 3-4 KAINALIU 73B KALAPANA NO 1 67-8 KAMAOA NO 2 5 KAMUELA 192-2 KAMUELA AIRPORT KAPAPALA RANCH 36	2249 2327 2512 2751 2894 3048 3077 3078	93 KAU 94 N KONA 93 KAU 94 N KONA 92 S HILO 93 KAU 91 S KOHALA 93 KAU		3 19 08 4 19 30 3 19 08 4 19 32 2 19 20 3 19 02 1 20 01 5 20 00	155 34 155 55 155 46 155 56 155 02	134 133 370 150 137 267 266 214 29	0 7A 0 7A 0 6A 5 8A	7A 8A 7A VAR	-00		HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELL P. SMITH KONA EXPERIMENT STA HAWAII VOLCANOES NAT PK HAWAIIAN RANCH CO PARKER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARD OF WATER SUPPLY
51 STEPHEN SEM 788 TANTALUS PEAK 780 TANTALUS PEAK 780 TANTALUS PEAK 780 TANTALUS PEAK 780 WATANUS PEAK 780	IKO	2 21 20 2 21 20 2 21 18 5 21 30 1 21 28 2 21 17 5 21 35 4 21 27	158 07 158 11 158 09	2000 1325 79 854 745 40 32 20	7A 8A 7A 8A 7A 7A 8A	200	BOARD OF WATER SUPPLY R. E. WHITE DEPI OF GEOSCIENCE WAIALUA AGR CO LTD WAIAHOLE WIR CO LTD WAIAHOLE WIR CO LTO SPENCER TINKER WAIALUA AGR CO LTO CAPITAL INVEST CO CAPITAL INVEST CO	KAUMANA 88.1  AWAINUI LOWER 193  KEAAU 92  KEAI WA CAMP 22.1  KEALAKKUA 26.2  KEANAKOLU CAMP 124.2  KEHENA RESERVOIR 176.1/  KIOLAKAA A + F 6	3510 ( 3770 ( 3872 ( 3925 ( 3977 ( 4098 ( 4245 ( 4425 ( 4425 (	D2 S HILO D1 HAMAKUA D2 PUNA D3 KAU D4 S NONA D2 HAMAKUA D1 N KOHALA D1 N KOHALA D3 KAU		2 19 41 1 20 05 2 19 38 3 19 14 4 19 30 2 19 55 1 20 07 1 20 10 3 19 04	155 09 155 39 155 02 155 29 155 55 155 21 155 45 155 48 155 38	112 108 28 170 145 528 384 252 192	3 0 0 0 0 0 8 8 0 0 0 0 0 0 0 0 0 0 0 0	VAR WI BA BA WI 7A HO			SHIGEO MASUYA HONOKAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COMPANY MISS AMY GREENWELL STATE DIV. OF FORESTRY KOHALA DITCH CO LTD KOHALA DITCH CO LTD STATE DIV OF FORESTRY
#ATAMA 986 A 9261 0) [#A #ATAMA 986 A 9360 0] 9970 #ATAMA 986 #ATA	ко	2   28   28   21   30   2   1   16   2   21   18   2   21   18   2   21   18   3   21   23   2   21   18   3   21   23   2   21   18	157 53 157 49 157 45 157 45 157 44	800 760 10 170 180 60 420 59 1100	8A 8A 8A 8A 8A 7A 8A MID	5	MAIAHOLE WTR CO LTD MANALULU ZOO BORNO OF WTR SUPPLY MAILUPE VALLEY SCHOOL MAIAUMA AGR CO LTD OAHU SUGAR CO BORRO OF WTR SUPPLY	KOHALA 179A KOHALA MAULILI [76 KOHALA MISSION 175-1 KOIAWE LOWER 196 KONA AIRPORT 68-3 KUKAIAU 222 KUKUJHAELE HIC 199 KUKUJHAELE MILL 206	4670 4680 4685 4764 4815 4928 A 4938	D2 S HILO D1 N KOHALA D1 N KOHALA D1 N KOHALA D1 HAMAKUA D4 N KONA D1 HAMAKUA D1 HAMAKUA D1 HAMAKUA D1 HAMAKUA D1 HAMAKUA D2 S HILO		2 19 44 1 20 14 1 20 13 1 20 14 1 20 05 1 20 05 1 20 07 1 20 08	155 09 155 47 155 48 155 38 156 01 155 21 155 35 155 34	98 30 517	9 0 7 7 8 9 0 0 0 0 0 0 0 0	W1 8A 6A 6A 6A 8A	ě		HAUNA KEA SUGAR CO.  KOHALA SUGAR CO K. LTMAN BOND HÜNOKAA SUGAR CO HAWATIAN AIRLINES HAMAKUA MILL CO HUNDKAA SUGAR CO HONOKAA SUGAR CO ONOKAA SUGAR CO ONOKAA SUGAR CO ST OEPT OF SOCIAL SER
AALAUPARA 563 2896/0 E MULICAA AALAUPARA 563 1866/0 E MULICAA AANALA MAUKA 592-0 1866/0 E MULICAA AANALA AANALA MAUKA 351-0 3547/0 HULICAA AANALA AANALA MAUKA 351-0 3547/0 HULICAA AANALA AANA		1 21 12 1 21 04 1 21 06 1 21 06 1 21 12 1 22 09 1 21 04 1 21 08 1 21 09 1 21 09	156 52 157 01 157 01 157 12 157 02 156 48	30 60 12 70 560 878 20 1075 450 700	8A 6A WK 7A 8A 9A 8A 6A	4-4-4-4-4	KALAUPAPA SETTLEMENT W. J. CARSTEN MOLDIKAI RANCH LITO MOLDIKAI GENERAL HOSPITA HOLDIKAI RANCH. LITO. DEL MONTE CORPORATION H. S. P. A. LIBBY MCNEILL + LIBBY ALOHA AIRLINES PUUOHONU RANCH	KULANI SCHOOL SITE 78 / LALAMILO FLD OFF 191-1 LANIHAU 68 C LAVA TREE PARK 66-1 MANUKA 2 MAUWA KEA BEACH MAUWA LOA SLOPE OBS MIDDLE HOLUALOA 68-1	A 5021 6 5260 6 5330 6 5460 6 6 180 6 6 198 6 6 198 6 6 198	01 S KOHALA 04 N KONA 02 PUNA 03 KAU 04 S KOHALA 05 HAMAKUA		2 19 35 1 20 01 4 19 40 2 19 29 3 19 07 1 20 01 5 19 32 4 19 37	154 54 155 50 155 50 155 35 155 58	830 573 261 153 65 176 10 1114 47	5 5 0 0 0 3 8 4 6 5	M10 8A VAR	201.00		U S WEATHER BUREAU ST DEPT OF SOCIAL SER STATE DEPT OF L + N RES KONA EXPERIMENT STATION STATE DIV. OF PARKS MAUNA KEA BEACH HOTEL U S WEATHER BUREAU KONA EXPERIMENT STA KAHUA RANCH
#AIAOL! 560 A 9604 01 MOLOXAI			156 55	3550	Tw	1	MOLOKAI RANCH	MOAULA 18	6407	)1 N KOHALA )3 KAU		3 19 11	155 50 155 30	60		MO			HAWAIIAN RANCH CO

#### STATION INDEX

	-									_										FEBRUARY 1968
STATION X SI DISTRICI	AGE 1		ONGITUDE	ATION	TI	ERVA ME A		OBSERVER	STATION	K NO.	NOIS	DISTRICT	AGE 1	TTUDE	ONGITUDE	ATION	T	SERV <i>A</i> IME <i>A</i> TABLI	ND	ORGERNALD
STATION NO DISTRICT	DRAIN	LATI	TONG	ELEV	TEMP	PRECIP	SPECIAL SHE MOTEL	OBSERVER	STATION	INDEX	DIVISI	DISTRICT	DRAIN	LATI	LONG	ELEVA	TEMP.	PRECIP	SPECIAL	OBSERVER
SLAND OF HAWAII	3 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9 19 15 20 14 15 20 01 15 19 16 15 19 34 15	5 35 5 55 5 55 5 45 5 45 5 17 5 5 3 5 26 5 26 5 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1530 673 395 1400 75 430 1270 445 415 800 870 670 5000 200 1270 100 1730 6511	7a 7A 8A		C	PUNA SUGAR CO HUTCHINSON SUGAR CO KOMA EXPERIMENT SIA KOMALA SUGAR COMALA SUGAR COMALA SUGAR COMALA SUGAR COMALA SUGAR COMALA MISS C. LEONAGE PARAMOLIMINA COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY COMALA COMPANY CO	PUU LEHUA 73 A PUU MALI 113 A PUUOKUHAU 167 A	846 851 854 855 855 857 867 878	0 04 5 01 8 01 0 02 5 05 0 02 5 03 9 03 0 01 0 01 5 02	HAHAKUA N KONA HAHAKUA N KOHALA S HILO N KONA S HILO KAU HAHAKUA N KOHALA S HILO N KOHALA	4 1 1 2 5 2 3 3 1	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40	155 36 155 49 155 26 155 26 155 23 155 12 155 12 155 41 155 23 155 23 155 53 155 53 155 64 155 47	400 305	5A	MO MO 7A 6A 72 6M 41 7A 8A 7A	c c	STATE DIV OF FISH-GAME OREEMELL RANCH OREEMELL RANCH OREEMELL RANCH OREEMELL RANCH OREEMELL RANCH OREEMELL RANCH OREEMELL RANCH OREEMELL RESTRICTORP KURALAN RANCH OS STATEMENT OREEMELL RESTRICTORP KURALAN RANCH OREEMELL RANCH OREEM

DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO INTRA-ISLAND DIVISIONS) LANAI: 1-(NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 4-WESTERN 5-CENTRAL 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to be Environmental Science Services Administration Regional Climatologies, P. O. How 3869, Homolium, Hawaii, or to may beather bureau Office near you. Additional precipitation data are contained in "MOURLY PRECIPITATION DATA HAWAII".

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are Temperature in "F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees (Resultant wind is the vector sum of wind directions and speeds divided by the number of nbservations

OBSERVATION TIME. Data in the "Monthly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Index shows observation time in local

EVAPDRATION is measured in the standard Meather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. Has and Min in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals hased on the period 1931-1960.

STATION NAMES Hawaii state key numbers are included following station names in the several tablee

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this hulletin IMTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates
- ++ Highest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown
- A The letter "A" whom following station mass in "Climatological Data" table, "Table precipitation" table, and "Station Index", indicates amount carried in the "Total" column is for the period from last neasurement of a preceding month through the last seasurement of the current month. See "Daily precipitation" table of this and previous bulletims for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month. H Adjusted to a full month.
- J "Supplemental Data" table
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage.
- T Trace, an amount too small to measure
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
  - AR Observation made after rain.
  - C In Special Cnlumn of Station Index indicates Recording Rain Gage Station. Bourly precipitation values are processed for special purposes, and are published later in the "Bourly Precipitation Data" bulletin. If daily amounte are published in "Climatological Data" bulletin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Hourly Precipitation Data" bulletin.
  - MO Gage read once monthly: usually on the last day
  - OC Gage readings at periods varying from a few weeks to several months.
  - S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset.
- VAR Observation time is variable
- WM Gage read weekly and last day of month.
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

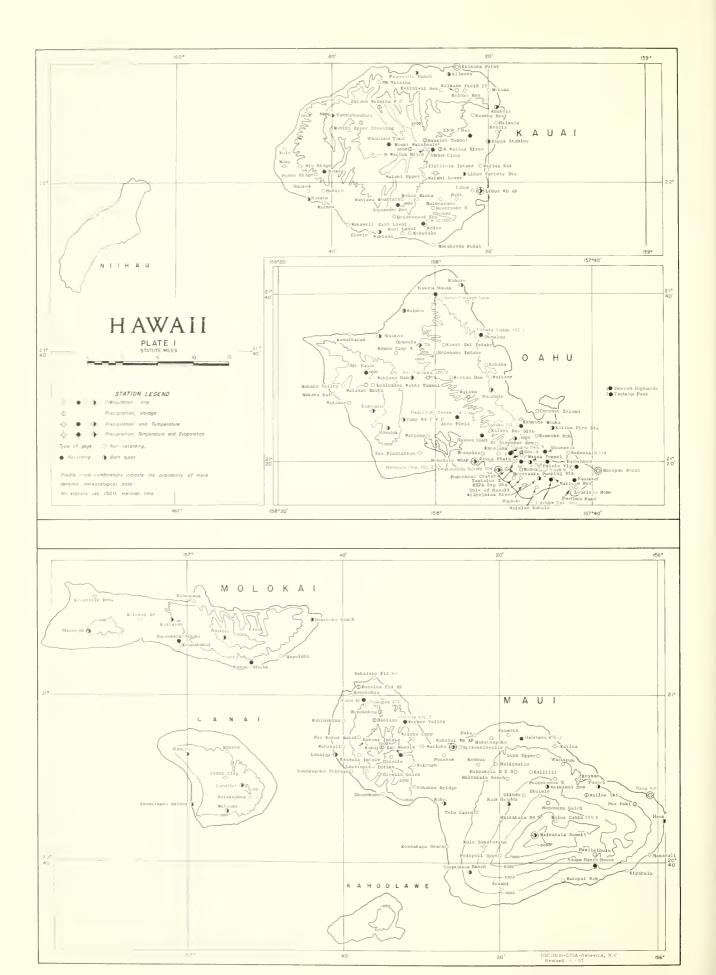
Stations appearing in the tables with no data were either miseing or received too late to be included in this issue,

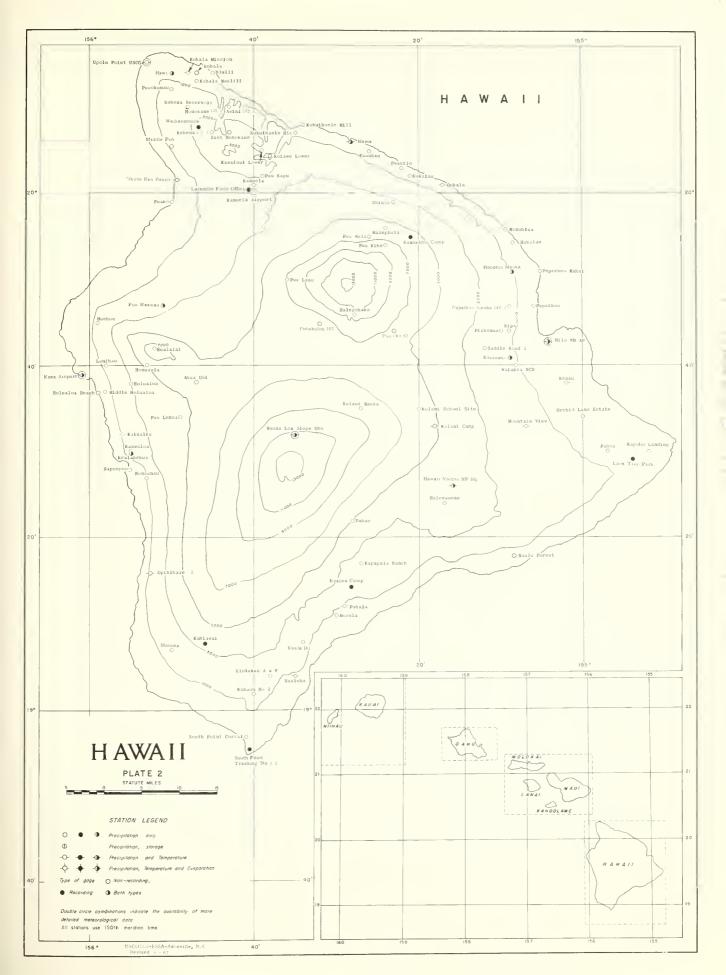
General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

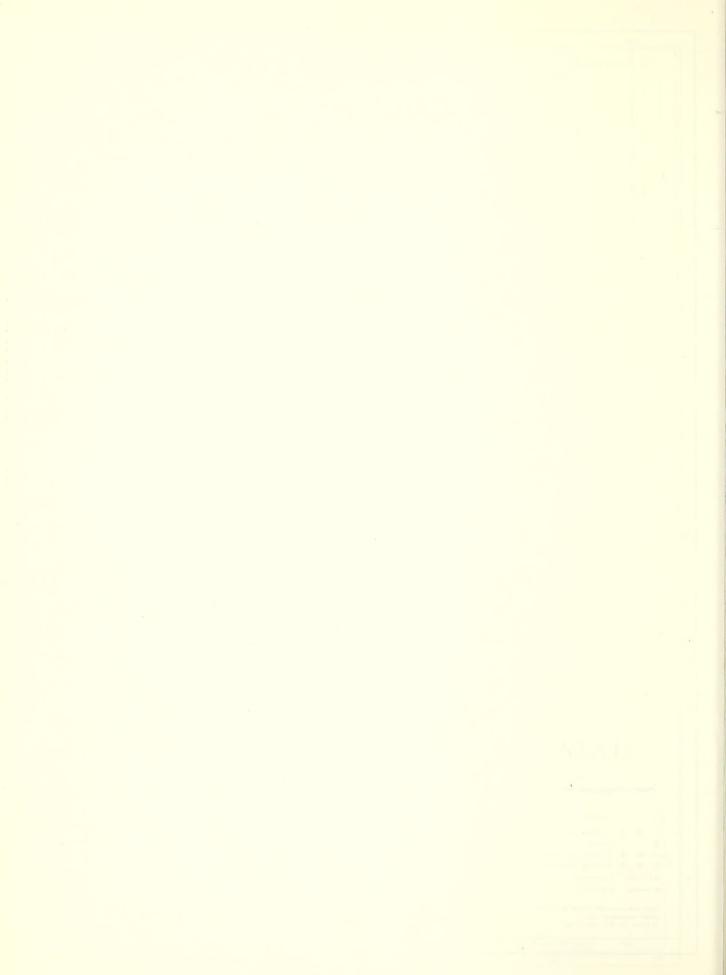
Information concerning the history of changes in locations, elevatione, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular weather Bureau statione may be found in the latest annual issue of Local Climatological Data, price 105 cents. These publications may be obtained from the Superintendent of Documents the address shown above.

Subscription Price 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, washington, D. C. 20002.

USCDMM-ESSA-ASHEVILLE-=5/29/68-890







CLIMATOLOGICAL DATASITY LIBRARY

U.S. DEPARTMENT OF COMMERCE

HAWAII

**MARCH 1968** 

Volume 64 No. 3

				C	LIM					A SEF			т	Δ	CLEMSON	7,	UL 1	5	1008	Vo Vo	lui N	ne	64	
					TIT VI				310	,AL	. 1			n.						B				
		1		1	Tem	perat	ure	_			N	v. of	Dave	-		3	7	Preci	pitation 8	Sleet		1	n of	Days
Station		Average Moximum	Average Minimum	Average	Departure Fram Narmal	Highest	Date	Lowest	Date		Above W	×.	Mi	n.	Tatal	Deporture Fram Narmal	Greotest Do	Date	Total	Max. Depth an Graund	Date	.10 or Mare	50 or More	1.00 ar More
* * * ISLAND OF KAUAI																								
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA PCINT 1133	A A	64.6	51.3	58.0 71.5		71	28+	42 62	g 20		0	0	0	0	4.00 6.94 6.06 13.56 11.12	- 2.21 3.68	1.60		.0 .0 .0	0 0 0 0		12	5	2
KOLCA 936 LIHUE WB AIRPORT MANA 1026 N WAILUA OITCH 1051 PH WAINIMA 1115	A R A	75.4 80.9	66.0	70.7 7I.4	- •3 •2	82 85	1 31+	61 57			0	0 0	0	0	5.96 7.25 1.45 18.22 28.40	67 2.69 - 1.20	3.51 .56 7.53	18	.0	0 0 0 0		8 4	5 1 12	
PUEHU RICGE 1040 WAHIAWA 930 WAIAHI LCWER 1054 WAIMEA 947	Α	75.9	61.4	68.7		83	3	55	R		0	0	0	0	1.92 2.20 11.27 .78 8.51	- 1.30 - 1.58	.75 .82 2.75 .32	29 17	.0	0 0 0		6 15 3	1 6 0	4
ISLANO  * * * ISLANO CF OAHU				0001											0,00									
HONOLULU OBSERV 702.2 HONOLULU WBAP 703 KAHUKU 912 KANEOHE MAUKA 781 KOOLAU OAM 833	R A	80.9 M 76.0	68.6 66.6	74.8 M 71.3	2.0	86 88 82		65 61 61	7 1 1 14		000	0 0 0	000	0 0 0	2.22 2.49 6.45 17.62 18.85	40 1.71 10.36 8.87	.84 .87 2.40 6.69 8.12	15 14 14	.0	0 0 0		5 6	2 2 9	0
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718	А	76.0 75.1	67.4	71.7	1.9	87 85	9	63 58	14		0	0	0	0	1.04 6.59 27.04 19.16 39.54	2.67 15.03 12.95 26.69	.40 2.03 8.35	14	.0	0 0 0 0		3 11	0 4	3
PR1 WAHIAWA 820-2 PUNALUU 884 WAHIAWA OAM 863 WAIAHOLE 837 WAIALUA 847	A A A	78.6M	62.0M	70.3M	•1	86	2	57 58	11+		0	0	0	0	6.12 11.13 6.80 26.87 6.91	12.04 3.41	3.80 9.18 2.00	14	.0	0 0 0 0		9	3	3
WAIKIKI 717•2 WA1PAHU 750 ISLANO	A	82.9	67.2	75.1 71.8		88	6	62	7		0	0	0	0	1.78 2.20 11.93	- •98	.67 1.08		•0	0		. 4	1	0
* * * * ISLANO CF MOLOKAI														Ì										
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	A	75.6	67.1	71.4		82	7	62	10+		0	0	0	0	8.55 5.80 3.40 3.81	3.99 1.58 37	2.50 1.34 .78 1.05	15	.0 .0	0 0 0		11	3	2 0 1
ISLANO  * * * 15LANO OF LANAI				71.4											5.39				•0					
LANAI CITY 672 ISLANO	A	73.4M	61.4M	67.4M	1 • 4	80	18	58	11+		0	0	0	0	5 • 6 2 5 • 6 2	1.29	1.91	14	.0	0			2	2
ISLANO CF MAUI																								
HALEAKALA R E S 434 HALEAKALA R5 338 HANA AIRPORT HONOKOHUA 493 KAHULUI WB AP	A A R	61.1 78.7 79.1	44.8 67.6	53.0 73.2 72.0	2	70 83	10+	38 62 58			0	0		0	14.50 6.97 16.81 9.63 6.93	5.29 5.55 4.71	3.70 1.52 6.55 2.76 4.94	15 15 16	.0 .0 .0	0		13	8 5 10	3
KAILUA 446 KEANAE 346 KIPAHULU 258 KULA SANATORIUM 267 LAHAINA 361	A	76 • 8 69 • 3 82 • 4	63.8 55.8 65.7	70.3 62.6 74.1	2.2	82	26+	50	25÷ 21 21		0	0	0	0	35.60 54.00 7.05 5.06	23.42 31.84 - 2.51 1.76 - 1.27	8.40 2.00 1.18 .25	24	.0	0 0		15 10 3	14 5 3 0	1 2
PAIA 406 WAILUKU 392 ISLANO		79.1	66.1	72.6 68.3	1.1	86	2	35	20		0	0	0	0	7.66 7.44 14.36	3.61 3.69	4.33 3.70		.0	00		11 14	2	1

### CLIMATOLOGICAL DATA

CONTINUED																				MAR		1	968	J
					Ten	pero	lure											Preci	oitotion					
												No. of	Doy	s					Sno	w, Sleet		١	lo. of	Doys
Station		Average	Average	Average	Deporture From Normal	Highest	Dote	Lowest	Date	Degree Doys		32° or ×	32° or Below	_	Total	Departure From Normol	Greotest Day	Date	Totol	Max. Depth an Graund	Date	.10 or More	.50 or More	1.00 ar More
ISLAND CF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HO 54 HILO WB AIRPORT HUEHUE 92A KAINALIU 73B	R A	77.3 66.7M 81.2	63.0 52.4M 67.8	70.2 59.6M 74.5	.7 1.7 3.9	83 73 88	7	60 46 63	9+ 5+ 2		0 0 0	0	0	0000	20.47 6.62 10.21 3.54 2.05	11.91 = 5.36 = 4.49 = .17 = 3.23	5.81 1.31 1.26	24 14	.0 .0 .0	0 0 0		16 17 17	11 4 8	8 1 2
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEHENA RESERVOIR 176.1 KONA AIRPORT 68.3	A	71.8M 80.9 M	51.2M 64.5 M	61.5M 72.7 M	2 • 4	78 87	18	42 61	22 4+		0000	- 1	0000	0	3.61 12.10 1.86 22.20 1.70	- 3.48	.84 1.60	19 23	.0	0		11	1 9	0 4 0
KUKUIHAELE HIC 199 KULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107	A	63.7 84.7 78.9	45.9 69.2 63.5	54.8 77.0 71.2	2 • 3	70 91 83	4÷ 31÷	36 53 60	7 24 22+		0 2	0	0 0 0	000	25.39 6.93 .26 4.89 3.02	15.35	6.50 1.08 .10 1.09	16 29 1	•0	0 0 0 0		20 1 9	1 16 0 5	7 1 0 1
PUAKO 95.1 PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCD 88.2	A														.66 6.80	3.59	.35 4.98	15	•0	0 0		2	0	0
ISLAND				68.7											8.02				•0			- 1		

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 91° ON THE 31+ AT MAUNA KEA BEACH, HAWAII

LOWEST TEMPERATURE: 30° ON THE 30TH AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 62.41 INCHES AT PAAKEA 350, MAUI

LEAST TOTAL PRECIPITATION: .26 INCH AT MAUNAKEA BEACH, HAWAII

GREATEST ONE-DAY PRECIPITATION: 13.70 INCHES ON THE 15TH AT PAAKEA 350, MAUI

#### HAWAII - MARCH 1968

#### SPECIAL WEATHER SUMMARY

The weather event of chief interest was the return of the trade winds which, after having been almost totally absent since early in December, set in intermittently during the first days of March and then, from about the second week on, continued through the remainder of the month.

Also worthy of mention was the heavy rain that occurred during the middle of the month. Stationary low pressure in the upper atmosphere and at the surface to the west of the islands brought scattered downpours and local flooding from late on the 13th to the 16th, mainly on Oahu and Maui, where a number of stations reported 24-hour totals of 7 inches and above and 1-hour intensities of up to 3 inches.

On Oahu, Maunawili had over 12 inches of rain in the 24 hours ending at 4:00 a.m. on the 14th, while on the 16th heavy rains caused numerous mudslides and power failures and forced eight families in the Waialua area to evacuate their homes shortly after 5:00 a.m.

On Maui, Kahului Airport was swept by northerly gusts of 52 m.p.h. at about 5:00 p.m. on the 14th and by torrential rains whose intensities reached over an inch in 10 minutes, 2 inches in 20 minutes, and 3 inches in an hour. At Paakea, on eastern Maui, the rain totalled nearly 24 inches in the 48 hours ending at 9:00 a.m. on the 16th, and of this 3.3 inches fell in the single hour between 5:30 and 6:30 a.m. On western Maui, flooding was reported from Napili Beach and Honolua, and a car was reported to have been washed into a stream at Honokawai.

Other important weather occurrences in March included the large westerly swell which, late on the 2d or early on the 3d, apparently pulled a \$9,000 charter boat from its moorings in Keauhou Bay, Hawaii, and pounded it to pieces upon the shoreline rocks -- the third boat to be wrecked by seas or wind in that area within a month.

Waterspout sightings continued numerous. A pilot reported seeing 4 to 5 between Kahoolawe Island and Kona, Hawaii, at about 9:50 a.m. on the 7th, while at 7:45 a.m. on the 9th another pilot observed a well-defined funnel cloud about 30 miles southwest of Kailua Airport, Hawaii, extending to within about 500 feet of the sea surface from a cloud base estimated at 4,000 to 5,000 feet.

The month was unusually cloudy, with all four Weather Bureau airport stations reporting well under their mean percentages of maximum possible sunshine.

In terms of the percentage of normal, March rainfall varied widely. In general, the normally windward (eastern) coasts and mountain slopes of all the islands equalled or exceeded their monthly means, while leeward (western and southern) areas were well below normal.

As shown below, several long-period stations had their wettest March of record, while others had their driest.

# Stations With More Rain in March 1968 than in Any Previous March

#### (25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest March Total	March 1968
QAHU Manoa Tunnel #2	40	41.46	42.62
Pauoa Flats	40	38.12	43,86
MAUI			
Kailua	64	34.47	35.60
HAWAII			
Kehena Reservoir	25	15.43	22.20

### HAWAII - MARCH 1968

## SPECIAL WEATHER SUMMARY - CONTINUED

Stations With Less Rain in March 1968 than in Any Previous March

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous March Minimum	March 1968
HAWAII			
Manuka	38	2.00	1.38
Napoopoo	27	0.71	0.67
		Saul Price Regional Clim P. O. Box 365 Honolulu, Haw Russell Dorr Acting Region P. O. Box 365 Honolulu, Haw	0 vaii 96811 nal Climatologist 0

	T													-	/ * *	f1														HAWA11 MARCH	1	968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	7 of M	Ionth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 (	30 3	31
1SLANO OF KAUAI																																
ANAMOLA 1111 A 8RYOESHOOO STA 985 A EAST LAWAI 934 A ELEELE 927 A HALAULA 1110 A	5.04 1.35 4.32	•01	:	:	.05 .03 .01	-01	•06		Ť	•		•01	.05	.56 1.04 .15	.45 .16 1.50	.45 .55 .64 .46	*	*	1.49 1.73 1.21 .42 1.47	.01 .01 T	.03 .11 .09 .10	۰01	•01	*	*	.33 .31 1.18 .02 .20	.01 .08	•03 T	.03	.35 T T .06		* . * . * .
HALENANAHO 1006 A HUKIPO 945 1L11L1ULA INTAKE 1050 INTAKE WAINIHA PC 1086 A KALIHIWAI RES 1131 A	7.91 .91 16.10 30.02 20.55	.07	**	:	.08 .15	.08	.80	.04			.03	.02 2.55	1.10	2.42	.93 .31 1.88 1.32 2.87	.89 .35 .86 .29	0 1	# 3.20 10.60 10.51	2.82 .10 .87 .39	.05 e	.12 .06 .18 1.56	.01	.05	.30	.54	.63 9.36 1.27	.48 1.78 .43	.04 .05 *	* •11	• 92	.73	20
KANALOHULUHULU 1075 KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 A KEKAHA 944			•60	.08		.08	.30 .06 .02	.09			1.40	.28 .05	.85 .06	.33	.45 2.00 1.58 1.30	.23 1.02 .70 .47	:	1.60	.15 5.12 2.47 1.14	.07 .15	.12 .10 .04			* 12	.25 * *	.09 1.10 .33 .17	.02 .27 .15	.45 .13 .03	.09 .05	.08 .05	.58	.25 .
KILAUEA 1134 A KILAUEA FIELO 17 1135 A KILAUEA FOLONT 1133 KOLO 1033 KOLOA 936 A	9.93 13.56 11.12 .93 5.96	.10	* • 06	.01	.05 .04 .05 .19	.11 .35 .19	•35 •91	•07			• 12	.02 .08	.17 .64 .10		1.71 2.23 .67 .12 .65	.67 .79 .14	4.19	4.90 5.54 1.66 .11	.60 .75	.08 .06 .10	.04 .05 .01	•01	.04 .12	e e •05	• 22	.46 .84 .20	•17 •21 •11	.13 .10	.02 .03 .14		.08	•
KOLOA MAUKA 994 KOLOKO RES 1137 AUKUIULA 935 LIHUE VARIETY STA LIHUE 1020 A		.10 .05 .02 .02	*		.04 .02	.06 .33 .04	•13 •86 T •20 •04	•12		:	*	.02 .15		.26	2.14	.79 .80 .54 .70	.24	* * 3.50	3.09 5.33 .45 .25 2.92	.05 T .06	.13 .07 .06 .16	T •01	•01	* * * * * * * * * * * * * * * * * * * *	• • • 29	.85 1.12 .50 .49	.11 .09 .05 .05	.06 .13 .03	.04	.02		12
LIHUE W8 AIRPORT R MAKAHUENA POINT MAKAWELI 965 A MANA 1026 MOHINI UPR CROSS 1083	7.25 2.44 .82 1.45 12.31	.01 .02 .27	•02		т	•01		•02		.08	Ť •24	.05	.68	.66 .26 .15	•37	.10 .85 .10 .22	.02	.91 .13	•02	.09 .13	.11	T	T	•15 •02	.09	.10 .22	T	T	T	·		T .
MOLOAA 1145 A NIU RIOGE 1035 N WAILUA 01TCH 1051 A PH WAINIHA 1115 PRINCEVILLE RANCH 1117	4.15 1.13 18.22 28.40 18.79	.11	•	.05	.36 .02 .13	.02 .09 .07	.02 .83 .17	* <sup>05</sup>			.09 .26	.01 .15 .31		.03 2.36 2.05	1.08 .26 2.05 3.90 3.46	.56 .20 .94 .30	5.50	.37 e 7.53 9.13	7.78	.01 .16 .37	.02 .02 .30 .22	.03	.07	.37 .26	e 1.47 .23	.53 1.57 .82 .41	.06 .37 .64	•01 •11 •50 •05	.01	.76		* . * . * . * . * .
PUEHU RIOGE 1040 PUH1 1013 A RESERVOIR 6 1004 A WAHIAWA 930 A WAHIAWA MOUNTAIN 990 A	2 • 20	.07		.05	•05 •03	.03 .06	.05 .08	•02			*	.05 .02	.39 .45 T	.12 .83 .84 .23	.31 .95 .85 .12	.28 .84 .73 .45	:	.75 * *	.03 2.52 1.79 .42	T.	.03 .10 .09 .07			:	:	.79 1.18 .06	•15 •12	•04 •03		.04	.19	.50
WAIAHI LOWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 A	11.27 12.65 1.11 5.37		•02 •02 #	•	•08	.08 .10	.39 .25	•11 •05				•03	.67 .79	1.89	1.63 1.62 .28 1.44 .25	.40	.07		.28 .28 2.17		.18 .17 .04 .15			.16 .30	•35 •41	.41 .35	.33 .65	.03 .05			.35	.04 .
WEST LAWAI 931 A	2.65		•	*	+01								.07	.38	.16	.61	*	٠	•72	т	.01	•01		*	•	.55	.02			•11	•	
1SLANO OF OAHU																																
AIEA FIELD 625 761 A BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT ISLANO 840.1	6.40 2.15 2.54 7.04 10.08		.04	.09	.04 .03 .04 .02	.05 T	•02					.07 .04 .09	.47 .11 .05 .10	.05	1.04 3.15	.09 .01 .13 .20		.06 .56	.03	.17	.03			•03 •03 •16	* •15 •23 •24	.62 .07	•26	.01 .08 .82	.45 .85 2.93	.04	.08	.35 .09 .07 .08
EWA PLANTATION 741 HELEMANO INTAKE 881 A HOKULOA 725.2 HONOLULU 08SERV 702.2 HONOLULU W8AP 703 R	2.10 24.57 2.35 2.22 2.49		*01 * T	:	• 32 • 04	* 13 T	:	*	*31	:	* •	* <sup>41</sup>	.03	.09	.44 * • 55 • 28	.11 3.65 * .11 .87			.03 16.71 2.01	• • • • • • • • • • • • • • • • • • • •	.03 * .02 T	. 20	*	* T *16	.20 * .30	.03 2.01 # T	# # T	.27	.96 T		: :	.05 . .04 . .05 .
HONOLULU SUBSTA 704 H S P A EXP STA 707 KAHANA 883 A KAHUKU 912 A KAILUA FIRE STA 791 <sub>0</sub> 3	1.95 3.47 49.96 6.45 6.90	*	• 01 • • T	:	.01 .66 .03	.03 * .11	* • 07	* • 01	•	:	.06 e	.08 .19 4.56 .01	.02 .41 .01 .33	.39 .05 *	.05 .55 .00 2.40 2.00	.44 .02 .70		.02	.01 33.20 1.30	* •10 •15	.02 .02		*	.08 .06 *	•0+ •2+ #	.25 8.10 .31	• 02		.27 e 1.13 2.55	.07	.10 .25 % 3	.34 .44 T
KALIHI RES SITE 777 KANEOME MAUKA 781 KANEOME RANCH 838 KAPALAMA 773 AAWAIHAPAI 841	34.58 17.62 15.93 8.31 7.36		.02 .35 .16	:	.88 .04 .20 1.00 .08	1.12 .65 .30	.04 .06 .05	*°1		.03	.30 .06	1.76 .07 .03 .40		.50		8.50	1.86 .90 *	1.54 # 1.45	.63		.02 .20 .22 .20	.01	*01 T 1.22		1.02	.08 .13 .11	.34 .02	.66 .32 .30 .46	.42 .87 1.75	.12		.04 .
KAWA1 1K1 INTAKE 880.2 A KEMOO CAMP 8 855 A KOOLAU OAM 833 LUALUALEI 804 LUALUALEI WTR TUNNEL A	19.50 8.81 18.85 1.04		* * *02	.01	.75 .37	.20	• 02			:		.02 .25	.I1 .84	* 32 * T	1.25 e	2.32	8.12 .14			:11	.07 .19	•		* .44	.97	.67 .87 .01	.03 .03	.02 .08	.98 .28	. 42	.89	.17 .01
LUNALILO HOME 724.2 MAKAHA KAI 796 A MAKAHA VALLEY 800.1 A MAKAPUU POINT 724 MANOA 712	4.30 1.52 1.49 6.59	.39	т	.46	.10 .03	.09		т		т	*	•28 •18 •81	.51	.13	.55		.41	.03		.01 .08 .05	•02	.03		.08	.12	.01 .02 .08 2.29	.04	•32 T •02	.02 1.27 .26	.03		.13 T
MANOA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 783 NUUANU RESERVOIR 5 775 A OPAEULA 870 A	42.62 3.84 27.04 15.42	.12	.05 .06	* .16	-04	1.72 T .72 .47	.02 .06					.04 1.00 .34	1.44	.48 4.08 .80	5.70 2.47	.07 2.50 .29	. 62	.61 # 3.68	7.96 6.24	.22	.02 .05		•02	1.64 .04 .62	2.06 .35 .61 *	.08 .05 .07 1.20	.14	.1	.04 .40 .06 .31	.12	.08 .66	.02 . .09 . .02 . .86 .
PALOLO VALLEY 718 PAUCA FLATS 784 PORTLOCK ROAO 724.4 PRI WAHIAWA 820.2 A PUNALUU 884 A	39.54 43.86 8.33 6.12 11.13	•40	.02 .02		2.22 2.08 .56 T	1.72 1.56 T	.02 .02 .30 T	•02			.40 .28	4.40 3.66 *	3.76 1.50	7.64 .90 .20	4.18	3.94		.51	.32		.02 .02 .10	.03	.10	1.14 1.34 .10	1.30	.04 .06 .50 .28	.46	.06 .18	1.05	.04	.74 .98 .06	.02 .
PUNCHBOWL CRATER 709 A ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAII 713 A WAHIAWA OAM 863 A			.03 .20	***	.09 .22 .14 .20	.01 .64 .78 .14	.04			**************************************	•01 •	.37	2.17	.14	7.71	.28	2.23	.05 .78 2.08	.29	.60 .08 .01	.29 .06 T			.05 .12 .25	.59	.10 .07 2.05 1.22 .37	.07 .04	.29	.20	Т	.08	.10 . .31 . .26 .
WAIAHOLE 837 A WAIALAE KAHALA 715 WAIALUA 847 A WAIANAE 708 A WAIANAE MAUKA 803 A	2.58 6.91 1.24		• •12 •01 •43		*21 T	1.37 .07 .02	.20 † †			• 03		.09 .05 .02		.07	9.18 .65 1.81 .43	.14	1.28			.17 .01	.34 .03 2.52	т .		.08	.21 .05	1.76 .04 .45 .01	*17 T *02	.89 .01 1.52	.09	.13	.13	.98 . .14 . .08 .
WALAWA 836 A WALKANE 885 A WALKIKI 717.2 WALLUPE RESERVOIR 170 A WALMANAŁO 794 A	9.35	Ţ	.07	* * T	.17 .07	.03 .10		• • •53	:		•	2.30 2.20 .04	.10		.67 6.70 3.20	.06	.37 .74	.10 .09		• 22	•	• 73	•	* • 02 *	* •06 •	5.15 .08	e T e T		.87 2.80	• 22	• 3. •06 •	.93 . .44 . .04 . .52 .
WAIMEA 892 A WAIPAHU 750 A WILHELMINA RISE 721	15.05 2.20 6.50		*	:	•17 •01 •32	.08	.02			•	.32	.50 1.22	.91	.03	2.35 1.08 .24	.24 .09 .94	.08	:	8.40 .88 .04	.20 T .06	.06 .02 .02			• 46	.74	1.20 .03 .08	.07	.06	.02	.03		.03 .

Continued	70													Day	of M	onth															
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	30 3
SLANO OF MOLOKAI																															
LAUPAPA 563 UNAKAKA1 536 ONELELE PEN5 551 ALAPUU 534 PULEHU 542	8 · 5 · 6	8 .10 5 5		•13 •	.53	.47					.18		1.76	.21 1.33	.61 .07	2.50	8.93		.78 3.45 .51		.47		•20	•11	.40	.06	.07	.03 .27	.36	•03 •14	.17
UNALOA 511 LOKA1 AP 524 UOHOKU PANCH 542+1 IKOLU 540	3.6	8	.29	.03		.06 .18					.20	.42	.78 1.05 .13	.28 .16 1.31	.65 .55 4.75	.68 .80	.40 1.78	.02	.26 T .30 7.15	.04	.03				.05 .92	.03 .09 2.90	.04	T	.15		.05
BLAND OF LANAL																									ā			1			u
NEPUU 690 UMALAPAU HARBOP 658 NA1 CITY 672 NA1HALE 684 HANA 694	A 2.6 A 5.6 A 5.4	2 9 *	:	:	.03	.30	.09	+59 T +37	:	:	:	* T . 22	.27	.40	2.38 1.91	.18 3.07	*	•	.20 .20	.19		2.38 T	:	:	:	.01 .05	:	25		1.06	.01
LAUEA 676 LAKEAKUA 685					•01		:	.05			:	.05	:	.07	*	:	:	*	1.56	:	* 1	1.10	:	:	:	•18	:	:		1.43	
SLANO OF MAUS																															
LEAKALA B E 5 434	A 3.6 A 14.5 A 8.1 6.5 5.2	0 4 • 7	٠	2.10 1.74 .18	1.43	.13	•				* T	.55 .09 .01	.2: .0s .1Z	.03 *	.04	1.20	3.70 1.64 .60 .55	.19	*	1.07 .65 .09		.02	•	* •05 •07	.82 .28 1.00	* •05 •12	.04 .35 .31	.24	.05	•20 1	
LIIMAILE 423 MAKUAPOKO 485 NA 354 NA AIRPORT NAHULI 281	7 . 8 12 . 2 11 . 3 16 . 8 12 . 9	4 5 1 T	* 32 T	.01 .02 .40	.36 T	.19 1.02 .39 .48	. 02 T	.02 T	•01	* T	.03 .39 .16	.11	.13	.05 .14 .43 .27	.58 3.51	1.83 5.65 .44 6.55	.71 6.00	.72 .17 .65	.43 .04 T	.42 .07 .28 .52	.42 .13 .37	T •31	.03		.32 2.30 1.75	•22 •27 •36 •10	.12 .12 .67	3.16 .02 .24	.05 .02 .02 .55	• 02	.54
NOKOHAU 480 NOKOHUA 493 NOMANU GULCH 341	A 5.6 A 44.0 A 9.6 A 12.4 A 12.2	0 *		*	* +05	.68	*	* *	*12 * 1.58		*	* • 25 *	1.26	.25 .62	1.16	.61 .3.56	2.76	:	1.01	* 05 *	* 12	:	2.35	:	:	.36	•	2 1	: 4	4.00 .02	12
	A 23.5 35.6 4.5	9 *	•	1.90	.31 1.96	T * 1.73 *	:11	.01 .01	.06	.01	.50	•52 • •22 •13 •02	.03			8.40 2.54	.01 6.20	.01 1.85	.01	.03	T 1.07 *	.01 T	T *	.72	.06 1.35	.08 1.07 .30	.02 .36	.05 .01	5.00 .01	T * .17 * T	.06 .23 .4*
ANAE 346 AWAKAPU BEACH 260°2 HEI 311 PAHULU 258 LA HEIGHTS 323°2	2 54 0 2 0 7 0 3 0 9	2 -		.68	•15	• T .52	:	8	-	:	•12	* T	- T •44	.12	.46	* 1.22 .61 1.16	.20	.80 .32 .09	.1 d	.03 .05	.01	-	-	.20	2.00	.01 .14 .03	:	-	.90 .20	.26	.09
A SANATOPIUM 267 (AINA 361 INIUPOKO INTAKE 376 INIUPOKO VILLAGE 372 II UPPEP 442	A .6	6 0	.02	.24	.03	T *	. 02 e					•19	.03 .08	T * •02		1.16	.19 .05 *	• 16	·	.24 .10 .10	.03			.02	.25 .05	•01	:	.70	.49	• 07	* 4 * 36
HINAMINA 466 KALELE -FLO 60-497 INOA 332 WALU 296 DRALU GULCH 377	. 5	3 ° 5	:		1.40 .05 1.08	.01	* T		* T	:	:	.30 .50 .11	.04	.18 T		1.51	2.05	4.06 #	8.57 .70	.10 .37 .08	.45 .17	.01		:	:	1.55 .73	:	.47	.17	.04	. 5
KEA 350 A 406 ILEIMULU 259.2 WELA 490 AKEA BPIOGE 307.2	62.4 7.6 A 3.4 A 15.6	6 9 • 3	:	2.57 T	.54		.09	•		:	T * * * * * * * * * * * * * * * * * * *	.48	1.46	.83 .03 .46	-10		11.20	.09	.02		4.00 •10 •16 •06	•27	• 03	1.15	4.10 .20	1.11 .13 * .06	.14 .03 .96	.10	.08 .03	2.27 1 * .01	.07
IPOLI SPRINGS 267.2 DHOKAMOA 2 343 J KUKUI MAKAI 472 JNENE 396 RECKELSVILLE 400.2		0 * 2	:	*	* * * * * * * * * * * * * * * * * * *	.03	• 04 *	:	:	:	* * T	* * • 23 • 13	* * •14 •32	.55		* * 3.84 4.45	* * •15 •31	.03 .07	:	* * .05 .02	2.90 * .07	:	*	:	.09	* * •12 •07	.06 .03	1.36	.18	:	* 52 * 16
JPALAKUA PANCH 250	A 2.2 A 9.8 A .5 A 1.2	5 a 6 6	e e • 04		* * *17 *10	*	:	*	:	:	*	* * 1.45 .01	.18 .02	.01	.02 .10	.34 .70	.02 .16 .35	.05	.11	* •08 •15	.08 .02	:	2.25	•	•	• 26	•	•	.10 1.10	•06	. 9
	10.5 13.1 A 46.1 A 30.1	7 0 <del>a</del> 5 T	:		.05 .10 	.46	* •01		*	:	.37 .30 *	.32 .43 .8 1.11	.50 .5 .87 .35	.26		3.02	.76 .92 * *	* 1	.03 # 1.78	.04 .10 * 1.36 .10	* 1.65	.38	.08	:	.21 .60	.44 .85 4 4.27	.27 .47 *	.75	1.31 1.09 .53 1.27		.32 .42 6
	7.4 1.0	3		•17	.16	.13	•01				•12	.20	.31	.06		3.70 1.03	.31	.03	т	.06	•13	T			•16	•21	•20	.03	.89	.02	.43
ELAND OF HAWAII																															
NI 182.1	A 2.5 A 42.1 A 22.1 20.4	2 1 *		* * * •09	1.17				• 25 • 11	:	* * * * * * * * * * * * * * * * * * *	* •01	.02	•	1.58 .03	4.68 1.77	* * • 78 • 30	* * * * * * * * * * * * * * * * * * *		2.12 8 5.81	2.48	.89 .36	.09	* * * *47	* * 1.04 2.55	* 5.95 * .66		.58	.03	1.77 2.71 1.65 1	.79 1
EPIULA 117 EPOHAKU 111 A11 VOLCN5 NP HO 54	A 3.4	6 *	- - - -	-	* - - - 25	* * * * * * * * * * * * * * * * * * * *	• - T	* - T	.03	*	.79	.03	.02	.09	.06	.46	.20	.10	.15	.44	.07	.03	• - - -	:	1.31	.20	.13	.14	.19	.61	.16
UALOA 70	R 10-2 A 7-4 A 1-6 3-1 17-6	1 0 • 2 •27		.32	• 53 *			•	•02	*27	.01	T *	.04		.05	.97 .28 .05	.19 .01	T *	.05	.67 .02	•39 •	.02	.45 *	.10	.98 1.07 .02 2.92	•15 •	.04	.05	.27 2.22	.32 1 7.40	.10
OMU MAUKA 138 UAULA 71 LALA1 72		7 0 • 0 •	:	* 32 *	8.39	2.83	:		•10 •03 •		*66	.02 			•91	4.81 2.13	.50		3.94	4.81 1.30	5.13	.75	.04	1.04		3.72	.51	.06	.08	2.00 .90 2	* 2.25
HALOA 29 NALIU 738 APANA NO 1 67.8	A 6.4 A 1.7 2.0 5.1 A 2.2	5 .09 2		.03 T	.03	.05 .13 .07	.07	*	•06	* •02 •03	1.27 .08	.08 .08 .07	•06	.13	.04	.07 .04 .31	.08	•12 •21 •54	•6	1.07 T	T .02 .04 T	.06	.03	.06 .21 .07	1.13 .20 .50	.05 .01 .03	.08	.42	.34 .75 .32		.09

Continued																															MARCH		1968
Station		Total													Day	of M	onth					,											
	_		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIRPORT KAPAPALA RANCH 36 A KAPOHO LANOING 935 A KAUMANA 88.1		8.34 3.61 4.63 9.03 2.13	.02 .02	T #	.06	2.19 .36 	.18	.02 * *	T *	.03 .01 .14 .87	T	T •4* *	:	*	* * •08		.78 .15 1.96 1.26	.38	•10 •12 * •	.50 .01	.42 .84 .60	.46 .11 .03	.18	.03 T .07		.22 .09 1.05	.80 .22 1.60 #	T * •20	T * 1.20	.20	.27 .09 8 2.27 1.04	• 15 e	.2912
KAWAINUI LOWER 193 A KEAAU 92 KEALAKEKUA 26.2 KEHENA 181.2 A KEHENA RESERVOIR 176.1 A	1.	2.31 2.10 1.86 2.67 2.20	.03 .01 .02	:	:	.72 * 6.76	.25 .07 *	* •05	.01	.05	.02 .15	.49	.11 .02	.04	.07	•10 •	8.92 1.37 * 2.35	1.23	.12	.02 *	* 14 * 1	1.26 8 9	.60 .26	.02	1.60	.73	.38 e 2.81	.10	* •72 * •03	.06 .72		.94 .08	.48 . .01 .
KIOLAKAA A • F 6 KIPA 89.2 KOHALA I79A KOHALA MAULILI 176 KOHALA MISSION 175.1	1 1	5.30 6.05 5.45 8.77 7.83	r T	:	.07	1.25 .29 1.25 .34	.42 .30 .81	•	•02	.08 .02	* T * T	.43	•02	.02 .01	.05 .05	.11	2.30 3.00 2.82 3.06	.43 .8 3.70	.04 e .69	.08 3.12 3.66	.02	1.05 .29 1.58 .58	.20 .11 .29	.05 .01 .02	*	1.23 8 9	* •19 4•45 4•28 •38	.23 .90 .98	.23	1.45	2.25 1.29 1.06 1.28		.89 .
KOJAME LOWER 196 A KONA AIRPORT 68.3 KUKAJAU 222 KUKUIHAELE HIC 199 KUKUIHAELE MILL 206 A	2 2	0.57 1.70 2.51 5.39 7.37	.01		.12 .32 .78	* 1.29 2.03 1.49	.12 .16 .31	# T	•	7.48 .11 .04		.03	•07	Ť	•03	.50	5.60 .54 .47 2.55 1.48	.26 6.50 3.15	.17 .06 1.75		7 3.70 .87 1.02		1.48 .50 .30	9.35 .11 .02 .04	.32 .60 .60	.31 .8 .8		• •20 •34		•42	.88	2.22	.05 . 1.44 . 1.20 . 1.10 .
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68 C MANUKA 2	4	6.93 7.13 3.81 4.24 1.38	.03		.01 .20	.41 .05	*.17	.33	* T	•17		.22 T .95	.20 e .33 .12	.08 T	.09 .03	•13	.67 .30 1.24 .29	.49 .06 .42	.13 .83 .29	.03 .23		.32 .02 .04 .05	.20 .13	.60 1.03 .04		1.17	.80 .87 * .77	.23 .02	.77	.70 .20 .55	T #		.15 .
MAUNA KEA BEACH MAUNA LOA SLOPE 085 MIDOLE HOLUALOA 68+1 MIDOLE PEN 147-1 MOAULA 18	A.	.26 3.60 1.95 .93 4.00	•10 •29 •		T s	.06	.13	*	:	*	*	*11	:	:	:	:	•04 •07	.22	.05 .02	.46	* *	.01 .09	.10	.20 *	.04 1.08	1.02	. 25 a	. 05 e	• 25 e	.04 .22 .80	.07		.25 .
MOUNTAIN VIEW 91 NAALEHU 14 A NAPOOPOO 28 A NAULU FOREST 38.6 NIUL11 179	4	7.03 4.18 .67 3.74 9.53	т			1.28 .05	*		• 01 •	.03 T	•02	.61 * .75	•14 •51 •01 •04	T *	* *	.05 .06 #	.16	.01	.12 * .06	.02 .22 .20 1.23 4.48	.61	*	.10	:	1.44	.50	.33 1.14 .46 .4		.04	.20 .68 *	.63	.38	.55 . R .
OCKALA 223 OP1H1HALE 2 24.1 ORCHID LANO EST 91.5 PAAUHAU 217 PAAULO 221	A 1	8.12 2.80 2.16 6.69 0.57	.59	•02	.08	1.03 .04 1.09 1.07	T .07	T •01		•12 •05	•	.07 .01 .01	T •01	T *	T *	•02	.68 1.89 1.64 .67	.13 .17 * .22	.08 .11 * .09	.05	.01	2.88		.03 1.23 4.00 .01	.35 *	1.68 .21 # 1.32 .90	.22	.08 T * .04	.72		.03 5.56 1.14	1.88	.01
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144-1 PAPAIKOU MAUKA 140-1	A 1	4.89 6.05 7.80 1.84 6.57	•17 •03		.06	1.12 .54 1.63	.28		•	.09 .01	* •02 T	.84 .25 .21 .50	.06	:11	.22 e T			.18 2.79  1.13 .40	.08 .28 .05	.04	.02	2.00 1.24 2.42	.60 .52 .49	* <sup>06</sup>		.85 .69 * 1.14 1.47	.60	.03		.10	.15	1.56	7.80 .
POHAKULOA 107 PUAKO 95.1	A   1	4.65 7.60 3.02 .66	.07			.38	.24			• 02	.01 *	.36		.07	.03	•07	1.62	.20	.05	*	.61 *	1.66	.54	.04	.53 * .35	3.20	1.58	.31	.37		17.60	a	1.22
PUU LEHUA 73 PUU MAL1 113	A Z	4.80 1.80 2.65 7.49	.21	*	.01	4.06	.47	.01	.01	• 02	*	.27	.03 .12	. O L	.12 .10	1.26	2.53	* - * •61	* * * * * * * * * * * * * * * * * * * *	1.66	.72 .18	2.56	• 38	.02	.48	. 6 4		1.04					4.80 · 1.80 · - - .07 ·
SACOLE ROAD 1 84	A 1	6.80 4.74 1.77	.27 .45 *	*	.24	-	.27	:		1.50		* * * * * * * * * * * * * * * * * * *		:	* * * * * * * * * * * * * * * * * * * *	.79	4.98 5.20	.09 * I.38	.16	:	.05	• • • • • • • • • • • • • • • • • • • •	.01	.84	• 51	1.7	.52 .66 -	*	.03	:	6.75	•09	
WATAKEA SCO 88+2	1	2.01				1.05	.22			.06		.40		Т	.07	.18	1.60	.44	.02		.58	1.11	.11	.10	.98	.95	.75	.13	1.0#	.15	.43	.57	1.02 .

### SUPPLEMENTAL DATA

		(	Wi Speed -		)		Relati		dity ave	rages -		Numl	ber of d	ays with	precip	itation			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	1501 2 AM	TH MERTE	DIAN TIN	AF 8 PM	Trace	0109	.1049	.5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WE AIRPORT	7	0.7	6.6	26	SE	17	86	81	73	85	3	6	9	6	2	0	26	24	8.6
HONOLULU. OAHU. WR AIRPOPT	4	7.4	9.6	32	NE	20	78	76	61	74	10	5 .	4	2	0	0	21	50	7.7
KAHULUI. MAUI, WA AIRPORT	4	9.3	11.7	43	N	14	89	86	73	85	7	11	5	1	0	1	25	40	7.5
LIHUE+ KAUAI+ WR AIRPORT	4	10.3	13.0	26	NE	20	87	85	77	85	11	4	3	4	0	1	23	40	8.2

									-	AI	ьі	11	[J]V.	IFL			OLM		_	-	_										ARCH		1968
Station		I	2	3	4	5	6	7	Я	9	10	11	12	13			Of M		18	19	20	21	22	23	24	25	26	27	28	29	30	31	Average
				3			Ů	-	-					-	-				l														
ISLAND OF KAUAI																																	
KANALOHULUHULU 1075	MAX	68	62	56 49	68	71	70	68	65	7 I	66	64	65 55	66	60 53	64	63	67 53		58 52	57 49	61	65 50	60 53	61 54	64 55	68 53	66 52	71 50	63	63 55	67 51	64.6
KILAUEA POINT 1133	MIN	58	56 78	72	75	75	79	82	84	84	75 65	71 65	73	81	71	75 66	74	78 66	77	69	73 62	74 65	73	74 68	76 67	77	79	75 68	8I 68	76 68	75 68	80	76.5
LIHUE WB AIRPORT	MIN	82 67	67 78 63	70 63	75	77	68 79 68	78 64	78 61	79 61	77	76 67	71	74	69	74	74 66	76 65	74 62	70 63	71	74 66	77	73	75 67	76 68	77	75 68	77	77 68	76 70	77	75.4
MAKAHUENA POINT	MIN	84	86	82	73	83	80 71	82	83	82	84	81	78	76 67	76 67	72	78 67	80		80 64	71	74	76 64	79 65	74 67	78 67	79 67	81	81	82		80	79.2
MANA 1026	MIN MAX MIN	80 62	82 60	82	76 61	79 61	82	84	84	85 62	85	85	82	79	80	72	72 64	79	80 64	79 66	73 58	78 57	80	8 <b>2</b> 60	82	83	84	83	80 64	85 62	85 60	85 59	80.9
NIU RIOGE 1035	MAX MIN	78 63	80	80		80	80	81	80	80	80	82	80	75 62	77	77	78 60	77 60	77 60	77 62	70 56	77 53	78 56	78 59	79 60	79	80	80	80	81 62	80	80	78.5
WAIAHI LOWER 1054	MAX MIN	81	82	83	71	75		79	81 55		76 60	76 63	78 62	72	71 60	72 61	72 65	75 63	77 59	76 61	70 57		75 61	72 62	70 62	73 64	77 62	77 63	80	80 61	75	76	75.9 61.4
					1																												
ISLANO OF OAHU																																	
EWA PLANTATION 741	MAX	82 63	84	75 64	80	85 67	86 62	83	83 61	86 62	83	77 68	81	79 68	73 63	76 63	77 66	82 66		74 67	75 64	79 62	82 64	73 66	79 67	81 65	84 68	83	83	83 65	80 67	82 65	80.4
HONOLULU WBAP 703	MAX MIN	82	84 70	78 67	80	86 70	85	82	82	82	83	78 69	84	78 70	72 66	78 69	79 69	81 68	82 71	77 68	77 67	79 67	82 69	75 69	81	83 70	85 71	8 1 7 1	85 71	84 70	81 71	83	80.9
HONOLULU SUBSTA 704	MAX	79 71	79	73 68		81 70	82	79 67	79 71	81	78 71	73 68	77 68	76 69	70 65	77 69	76 70	80 69	79 71	73 67	72 68	75 68	76 71	74 68	75 69	78 71	79 70	82 70	80 7 I	78 72	76 71	7 <b>7</b>	77.1 69.3
KAHUKU 912	MAX MIN	8I 61			88	75 69	78 66	8 I 6 3	80 63			82 67	78 67	78 73	77 63	73 65			80 65	79 67	75 67	73 68	75 69			78 68	79 70	79 71	79 68	80 68			
KANEOHE MAUKA 781	MAX M1N	82	81	81	71	72 68	80 66	81	81	81	82 68	78 68	71 67	75 67	72 61	69	74 67	74 66	80 66	71 66	70 65	72 67	75 66	76 66	73 67	73 69	78 68	78 68	79 68	79 67	71 68	77 68	76.0 66.6
MAKAPUU POINT 724	MAX	87 67	78 70	78 66	72 64	73 68	77 70	78 68	81	80 71	80	<b>7</b> 7	75 67	75 66	74 63	71 65	74 68	73 66	77 68	76 67	75 66	71	72 65	75 66	73 68	72 66	77 67	78 69	76 67	78 71	75 69	78 69	76.0
OPAEULA 870	MAX	81 58	78 66	80	70 62	72 63	77	81	81	85	82	79 64	69	72 64	70 59	66 59	71 60	71 61	76 63	79 63	68	71 60	69 61	75 64	70 63	69	74 64	77 64	78 65	79 62	79 71	78 62	75.1 62.2
PRI WAHIAWA 820.2	MAX MIN	8 2 5 7	86 62	84	85	78 62	8 2 5 8	83 59	81 57	82 58	81 63	83 57	76 65	75 65	74 60	69 61	74 62	79 64	80 62	80 64	72 62	75 61	76 62	69	71 65	80	79 66	81 66	81	81 64			78.6 62.0
WAIALUA 847	MAX	80	84	79 64	72	75 64	79 58	81	80 58	82	82	79 64	77 65	78 67	75 62	71	75 64	77 64	78 64	77 66	72 63	74 60	75 59	77 60	77 64	76 65	80 59	80 67	80 67	83	82 63	78 64	77.9
WA1KIKI 717.2	MAX MIN	85	84 66	84 67	81 67	83 69	88	86 62	87 65	87 64	86 65	86 70	81 67	84	78 65	74 66	79 69	78 67	84 66	86 69	79 66	80 66	78 66	84 68	77 68	81	85 70	86 69	85 70	87 70	85 68	83 70	82.9
ISLANO OF MOLOKAT																																	
MOLOKAI AP 524	MAX MIN	78 65	78 69	78 69		71 67	79 65	82	81 65	81 62	81 62		70 65	77 68	72 68	72 67		77 69	78 69	76 67		71 66		75 69	71 68		76 69		77 69	78 69		75 70	75.6 67.1
	7																																
ISLANO OF LANAI																																	
LANAI CITY 672	MAX MIN	78 62					78 60					78 58	67 63	74 63	70 61	71 59			80 61	73 63	67 59		69			73 63		76 64					73.4
	î																																
ISLANO OF MAUI																																	
HALEAKALA RS 338	MAX MIN	69 45	61	67 43	64	70 49	69 45	70 45	62 43	64 38	58 42	63 43	62 48	64	63	53 45	54 45	55 47	59 46	5 8 4 7	62 47	66	67	57 45	54 46	59	56 44	57 45	58 47		60 45	53	61.1
HALEAKALA SUMMIT 338.4	MAX MIN		57 42	59 43		60	60	62 43	61 45		44	57 39	58 38	59 38	59 36	56 34		58 35	5 9 3 5	57 37		55 34	58 40	55 36	54 35	46 36	50 40	50 42	43		48	48	55.4
HANA AIRPORT	MAX MIN	83 64	81 62	82 66	76 71	80 70	80 69	80 68	83 71	82 65	83 70	82 68	76 68	80 68	76 70	76 65		79 69	80 68	75 67	72 64	74 68	79 68	77 64	73 66	77 67	79 66	80 70	81 70	79 72	80 68	79 67	78.7 67.6
KAHULUI WB AP	MAX MIN	83	82 65	75 66	75 66	84 63	81	80 60	81 59	83 58	79 63	78 68	82	77 66	75 64	77 64	76 67	79 66	77 69	77 67	74 65	78 65	81 59	75 67	80 67	80	80 68	82 65	80 67	82 68	80 67	80 66	79.1
KAILUA 446	MAX	79 64	81 64	8 1 6 4		81	81 63		76 63				75 65	75 65	71 66		70 65	73 65	78 66	78 66	78 61		78 61		71 61	75 61	76 65	77 65	78 65	73 68	78 65	77 65	76.8 63.8
KULA SANATORIUM 267	MAX MIN		71 56	70 57		72 54	70 55	71 54	69 54		72 56	69 54	70 55	70	69 57	64	66	69 59	73 59	70 57	68	65 50	68 51	68	66 59	69 56	73 57	69	70 59	68	72 56	71 54	69.3
LAHAINA 361	MAX	82 66		83 68		83 64	84 65	84 65	84 64	84	89 64	83 66			80 68			82 67		83	84	79 60		A1 67	79 68	80		84	81		84	85 64	82.4 65.7
WAILUKU 392	MAX MIN	84 65	86 65		71 67		83 64	84	83	84	8.2	7.8	7.8	8.2	76	74		76	82	70	73	72		80	73 67		79 68	81			82 68	80	79.1 66.1
																											_			Ī			, .

Continued									L	'AI	LI	1.	E'I^	IPI	in/	7.1	UI	LE	)												MARCH	4	1968
Station																Day	Of M	lonth															ge
Diation		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TVOL
* * *																					_												
ISLANO OF HAWAII																																	
MATNA 214	MAY	0.1	0.0	0.2							1																						

DAILA LEVADED KALIDEG

80 78 78 79 83 81 77 76 75 73 82 79 75 60 60 61 62 66 64 64 64 65 64 67 66 62 83 68 74 82 80 64 64 62 60 60 MIN 63 62 71 75 61 62 HAWAII VOLCNS NP HQ 54 62 54 69 59 62 52 66.7 HILO WB AIRPORT MAX MIN 84 71 75 71 KAINALIU 73B MAX 80 61 75 65 79 66 76 63 79 65 75 62 KAMUELA 192.2 MAX MIN 72 55 66 57 KAMUELA AIRPORT MAX 67 53 78 54 75 53 KEAAU 92 86 62 83 64 KEALAKEKUA 26.2 MAX KOHALA MISSION 175.1 MAX 81 83 64 66 82 65 70 67 80 64 81 68 74 69 69 62 77 65 KONA AIRPORT 68.3 84 70 84 71 KULANI CAMP 79 MAX 60 42 59 45 64 63.7 MAUNA KEA BEACH 83 73 84 72 84 72 82 68 88 85 72 82 70 MAUNA LOA SLOPE OBS 45 36 54 37 41 34 48 35 54 35 40 34 43 36 50.1 36.1 MOUNTAIN VIEW 91 80 80 56 56 77 58 77 58 79 60 65 57 NAALEHU 14 78 65 79 65 79 65 OOKALA 223 MAX 82 66

#### EVAPORATION AND WIND

81 78 64 64 75 60

78 78 66 66 74 62

OPIHIHALE 2 24.1

UPOLU POINT USCG 159.2

MAX

PAHALA 21

Station																Day	Of Mo	onth															Total or Avg.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	To Av
* * * ISLANO OF KAUAI																																	
LIHUE WB AIRPORT	EVAP WINO MAX MIN	103	93 87	8.8 8.6	190		113	62 86	60 85	69 88	72 81	159 81	.18 227 73 64	221 70	147 73		228 73	178 74	56 88	106	183		235 75	189 78	72		211	177 84	.13 70 79 65	122	218	81	6.71B 4807 79.0 62.5
* * * ISLANO OF DAHU																																	
HONOLULU OBSERV 702.2	EVAP WINO MAX MIN		11 90	40 95	50	32 86	•19 19 93 68	.17 10 96 66	•17 17 94 66	.16 18 94 66	22 96	•21 39 89 68	•13 48 84 68	•15 52 88 68	010 37 82 66		•09 30 77 66	26 80	21	46	61 79 63	80 82 60	48 84	30 85	.06 43 75 67	.17 41 85 66	.20 44 89 67	40 92	011 16 87 70	*11 20 88 68	•27 56 92 68	• 20 48 90 66	4.84 1099 87.2 66.0
* * * ISLANO OF HAWAII																																	
HILO WB AIRPORT	EVAP WINO MAX MIN		58 87		44		•23 72 85 62	.16 99 85 64	.32 100 85 64	.15 74 86 62	68 87 68	.18 49 87 63	.24 65 87 66	.24 83 86 66	.24 82 81 68	•11 77 76 68	•02 23 74 68	•25 96 85 67	•11 51 83 68	.02 133 74 68	.04 156 73 64	.20 87 79. 63	.06 33 71 63	.05 28 71 63	.12 12 71 64	.07 19 78 70	•11 27 85 66	* 43 80 68		.28 116 82 70	147 85	.10 95 81 65	4.53 2253 81.1 65.9

	o z	++ (-1.) (a)	30	NC	OBSERV				NO.		E ÷	DE	NO	OBSERVA TIME A	LND	
STATION	DIVISION DIVISION	DRAINAGE	LONGITUDE	ELEVATION	TAB		OBSERVER	STATION	INDEX NO	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	1	OBSERVER
LANC OF KAUAT		+ -		1410	1		MC BRYDE SUGAR CO.	ISLANO OF LANA!	3130 0	I LAHAINA	1 20 53	157 00	1640		-	DOLE COMPANY
ANAHOLA 1111 A JRYJESHOOD JTA 985 A	0145 OI KAWAIMAU 0240 OZ KULOA	2 21 57 1 27 09 2 21 56 2 21 55 2 22 06	159 19	1610 116 720	7 A 7 A	C	LIHUE PLANTATION CO MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD	KAUMALAPAU HARBOP 658 A LANAI CITY 672	3461 0 5286 0 5301 0	I LAHAINA 1 LAHAINA	1 20 47 1 20 50 1 20 49	157 00 156 55 156 53	30 1620 3370	7A 7A W1	2	OOLE COMPANY DOLE COMPANY OOLE COMPANY
EKE 3 RESERVOIR 1394.1 ELEELE 927 A	0456 02 KOLOA 0465 02 KAWAIHAU 0470 02 KOLOA	2 21 55 2 22 06 2 21 54 1 22 07	159 30 159 22 159 35 159 19	350 163	7A 6A	E	MC RRYDE SUG CO LTO	MAHANA 694 A MALAUEA 676 A	5704 0		1 20 53 1 20 46 1 20 47	156 55 156 55 156 52	1430 1135 2040	MO W I	c	OOLE COMPANY OOLE COMPANY DOLE COMPANY
HALENANAHO 1036 A HARALET TUNNEL 1353 A	0935 01 KAWAIHAU 1038 02 LIHUE 1170 01 KAWAIHAU 2161 03 WAIMEA	2 21 58 1 22 05 3 21 59	159 26	253 490 1218 800	7A 8A		LIHUE PLTN CO LTO GROVE FARM CO LTD LIHUE PLTN CO LTD KEKAHA SUGAR CO LTD	ISLANO OF MAUI								
LE ILIULA INTAGE 1050	2222 02 LIHUE	2 22 02	159 28 159 34	1070	7A H1		LIMUE PLTN CO LTD MC BRYDE SUG CO LTO	FIELD 46 474 HAFLAAU 477 A	0175 0 0541 0 0790 0	2 HANA 4 LAHAINA 4 LAHAINA	2 20 37 4 20 59 4 20 57	156 20 156 38 156 36	2060 1050 2980	VAP	c	ULUPALAKUA RANCH MAUI PINEAPPLE CO. S MAUI PINEAPPLE COMPANY
INTARE WAINIMA PC 1086A EALIHIWAI RES 1131 A EANALOHULUHULU 1075 KANEHA RESERVOIR 1092 A	3099 03 WAIMEA	1 22 09 1 22 11 3 22 08 1 22 08	159 26 159 40 159 22	400 3600 800	8 - 8A	c	KILAUEA SUG PLTN CO KANALOHULUHULU R. S.	HALEAKALA B E S 434 A	1004 0	1 MAKAWAO 1 MAKAWAO 2 MAKAWAO	1 20 51 1 20 50 2 20 46	156 18 156 19 156 15	2100 1850 7030	7A 6		U OF HAWAII EXP STA HALEAKALA RANCH CO HALEAKALA NAT PARK
KAPAA STABLES 1104 A KEALIA 1112 A KERAHA 244	3159 01 KAWAIHAU 3982 01 KAWAIHAU 4272 03 WAIMEA	1 22 05 1 22 06 3 21 58	159 20 159 19 159 43	175	7 A 7 A 7 A 8 A	c	LIHUE PLTN CO LIO LIHUE PLTN CO LTO KEKAMA SUGAR CO LTD	HALEAKALA PS 338 HALEAKALA SUMMIT 338.4 HALEHAKU 492.2 HALIIMAILE 423	1008 0 1016 0 1075 0	2 MAKAWAO 2 MAKAWAO 1 MAKAWAO	2 20 43 1 20 55 1 20 52	156 16 156 17 156 21	9960 690 1070	8A 8 -	2	U OF MICH MT HKALA OBSY PHIL SCOTT MAUL PINEAPPLE CO.
KILAUEA 1134 KILAULA FIELD 17 1135 A	4561 01 HANALE1 4566 01 HANALE1	1 22 13	159 25 159 24	415	8A 6A 7A	K	KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO	HAMAKUAPOKO 485 HANA 354		1 HANA	1 20 55	156 21	320 120	5A 8A	c	HAWAIIAN COM + SUG CO HAPRY HASEGAWA
KITANO 1037+1	4568 01 HANALEI 4650 03 WAIMEA 4735 03 WAIMEA	1 22 14 3 22 02 3 22 04	159 24 159 41 159 46	180 2150 36	8A 8A 7A	K	U S COAST GUAPD KEKAHA SUGAR CO. KEKAHA SUGAR CO LTD		1148 0	1 HANA 1 HANA 2 MAKAWAO 4 LAHAINA	1 20 48 1 20 41 2 20 45 4 20 58	156 13	61 325 6930 870	11A 11A 7A MO MO		HAWAIIAN AIRLINES KOALI PANCH HALEAKALA NATL PARK RGS MAUI PINEAPPLE CO
COLOKU RES 1137 A	4742 02 KOLOA 4750 02 KOLOA 4758 01 KAWAIHAU	2 21 55 2 21 58 1 22 11	159 28 159 29 159 23 159 30	240 640 737	8A 7A 7A		GROVE FARM CO LTO GPOVE FARM CO LTO NILAUEA SUG PLIN CO	HONORUM 493 A	1887 0	4 LAMAINA 4 LAMAINA	4 21 00	156 39 156 38	135 125 6280	6A MO		MAUI PINEAPPLE CO S MAUI PINEAPPLE CO HALEAKALA PANCH CO
LINUE VARIETY STA	4950 02 KOLOA 5560 02 LIHUE 5575 02 LIHUE 5580 02 LIHUE	2 21 54 2 22 01 2 21 59 2 21 59	159 23 159 22 159 21	100 375 207	6A 7A 7A	C BAC J	MC BRYDE SUG CO LTO HAWAIIAN SUGAR PL ASSN LIHUE PLTN CO LTD U S WEATHEP BUREAU	IAO NEEDLE 367.2 KAHAKULOA MAUKA 482.3	2208 0 2453 0	1 MAKAWAO 3 WAILUKU 3 WAILUKU	1 20 47 3 20 53 4 20 59	156 33 156 33	1100	HO.	c	STATE OIVISION OF PARKS EOWARD CHANG
MAKAHUENA POINT	5785 02 KULUA	2 21 52	159 27	52	8A 8A 7A		U S COAST GUARD OLONELE SUGAR CU	KAHULUI W8 AP R KAILIILI 436 A	2572 0 2630 0	4 LAMAINA 3 WAILUKU 1 MAKAWAO	4 20 54 3 20 54 1 20 51	156 26 156 16	2520	MID MID M	E J	PIONEER MILL CO LTD U S WEATHER BUREAU E MAUI IRP CO LTO
H + M 1001 MOHIHI UPR CROSS 1083	5864 03 WAIMEA 6082 03 WAIMEA 6097 02 6433 01 WAIMEA	3 21 55 3 22 02 2 21 55 3 22 07	159 38 159 46 159 28 159 36	300	9A 9A	1	KEKAMA SUGAR CO LTD GROVE FARM COMPANY U S GEO SURVEY	KAILUA 446 NAUAULA INTANE 375 KAUPO RANCH HOUSE 259	2679 0 3433 0 3576 0	4 LAHAINA 2 HANA	1 20 54 4 20 53 2 20 39	156 08	700 1585 1020	7A 7A W1	c	E MAULIER CO LTD PIONEER MILL CO LTO KAUPO PANCH
NJUNT WATALEALE 1947	6529 01 KA#AIHAU 6569 02 WAIMEA 6850 03 WAIMEA	1 22 11 2 22 04 3 22 02	159 20 159 30 159 44	330 5075 1250	7A 6A 6A 7A		LIHUE PLANIATION CO. U. S. GEO. SURVEY KEKAMA SUGAR CO LTD	KEAHUA 410 KEANAE 346 KEAWAKAPU BEACH 26U.2	4091 0	2 MAKAWAO	3 20 52 1 20 50 2 20 42	156 23 156 10 156 27	980 15	SA M BA		HAWAIIAN COM + SUG CO E MAUI IRR CO LTD S A. L. CORELL
	0893 01 LIMUE	2 22 04 2 22 04 1 22 12	159 28 159 26 159 34	1110		5	LIMUE PLIN CO LTO LIMUE PLIN CO LTO MC 8PYDE SUG CO LTD	KIHEI 311 KIPAHULU 258	4489 0 4634 0 4687 0	3 WAILUKU 1 HANA 4 LAHAINA	1 20 39	156 27 156 04 156 35	90 260 5788	7 A	τ.	MAWALIAN COM + SUG CO KIPAMULU CATTLE COMPANY S MAUL PINEAPPLE CO
PRINCEVILLE RANCH 1117 PJEHU KIOGE 1040 PJHI 1013	8155 01 HANALE1 8165 01 HANALE1 8205 03 WAIMEA 8217 02 LIMUE	1 22 12 1 22 13 3 22 01 2 21 58	159 29   159 42   159 24	295 1660 329	7 A		PRINCEVILLE RANCH KEKAHA SUGAR CU LTD GROVE FARM CU LTO	KUKUI 380 KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361	5003 0 5006 0		4 20 54 2 20 47 2 20 42 4 20 53	156 19 156 22 156 41	2520 3004 45	7A 7A 7A 7A	c	KENNETH WILLEY KULA SANATORIUM PIONESE MILL COLITO
STABLE CAMP 1055-1	8573 02 LIMUE 8694 02 LIMUE	2 21 57 2 22 04 2 21 54	159 27 159 27 159 34	420 740 215	8/\ 8 \ 7.A	E	LIMUE PLANTATION CO. MC BRYDE SUG CO LTO	LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372A LUPI UPPER 442	5408 0	OAWAAM 1	4 20 51 4 20 51 1 20 53	156 37 156 39 156 15	1280 220 1240	VAR 7A MO		PIONEER MILL CO LTD PIONEER MILL CO LTD E MAU1 IRP CO LTO
WAHLAWA MOUNTAIN 990 A WALAHI LOWEP 1054 WALAHI UPPER 1052	8941 02 KOLUA 8949 02 KOLUA 8958 02 LIMUE 8966 00 LIMUE	2 21 58 2 22 01 2 22 01	159 31 159 27 159 28	2100 565 780	6A 6A 8A		MC BRYDE SUG CO LTO LIMUE PLTM CO LTD LIMUE PLIM CO LTD	MAHINAHINA 466 MOKJPEA 475	6521 0	4 LAMAINA 4 LAMAINA	4 20 57	156 40 156 37	715 129	7A		PIONEER MILL CO LTD S MAUI PINEAPPLE CO
WALAWA 943	9253 O WALMEA	3 21 59 2 22 02 3 21 57	159 43 159 21	10 50 20	8 A 7 A		KEKAHA SUGAR CO LTO LINUE PLANTATION WAIMEA SUG MILL CO	OLOWALU 296	7040 0	4 LAHAINA 1 MAKAWAO 4 LAHAINA	4 21 02 1 20 48 4 20 49	156 17 156 38	340 4127 7	VAR VAP 7P		MAUL PINEAPPLE COMPANY MAUL CO WATER DEPT PIONEEP MILL CO.
	9467 02 LIMUE 9629 0. WAIMEA 9955 02 KOLUA	3 21 57 2 21 54	159 41	210	8A 6A		MC BRYOE SUG CO LTO	PAAKEA 350 PAIA 406	7194 0 7566 0	4 LAMAINA 1 HANA 1 WAILUKU 2 HANA	4 20 51 1 20 49 1 20 55	156 36 156 07 156 23	800 1260 170	MO 6A 6A	c	PIONEER MILL CO LTO E MAU! IRR CO LTD HAWAIIAN COM + SUG CO
ISLANU OF DAHU ALEA FIELD 625 761 A	0111 03 EWA		157 57	455	7.A		WAIAHOLE WTP CO LTO	PANILEIHULU 259.2 PAUWELA 490 POHAKEA BRIOGE 307.2 POLIPOLI SPRINGS 267.2	7674 0 7857 0 8060 0	I MAKAWAU 3 WAILUKU	2 20 41 1 20 55 3 20 49 2 20 41	156 08 156 19 156 31	3570 485 167 6150	VAP		KAUPO RANCH CO. HASEROT PINEAPPLE CO. WA]LUKU SUGAR CO STATE DIV OF FORESTRY
GERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT ISLAND 844.1	0311 02 HONDLULU 0300 0 EWA 0340 01 KOOLAUPOKO 0350 01 KOOLAUPOKO	2 21 19 3 21 25 1 21 39 1 21 26	157 51 158 04 1 157 56	680 20	9A 6A 5		BOARO OF WTP SUPPLY OEL MONTE CORPORATION RICHARO COBURN U OF H MAPINE LAB	PUOHOKAMOA 2 343	8336 0		1 20 50	156 13	2980 2500	MO MO		E MAUL IRP CO LTO PIONEER MILL CO LTD
DOWSETT HIGHLANDS 780.	0438 02 HONOLULU 0907 03 E+A 0964 02 HUNOLULU	2 21 21 3 21 21 2 21 23	157 50 158 02 157 54	565 42 170	8A 7A		J. L. SANNING EWA PLANTATION CO BUARO OF WATER SUPPLY	PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2	8543 0 8553 0 8688 0	3 WAILUKU	3 20 53 1 20 46 3 20 54	156 27 156 03 156 25	60 2160 85	7A 8A		HAWAIIAN COM + SUG CO S EAST MAUI IRRIGATION CO HAWAIIAN COM + SUG CO
HELEMANO INTAKE 881 A HUKULOA 725.2 A	1384 05 WATALUA 1540 03 E#A	5 21 33 3 21 24	158 00 158 06	1274	W1 VAR	e e	H. V. VON HOLT	TWIN GATES 261+3  UKULELE 333  UKUMEHAME 301	8742 0 8744 0 8750 0	3 MAKAWAO 1 MAKAWAO 4 LAHAINA	3 20 46 1 20 48 4 20 48 2 20 39	156 23	1310 5230 75	VAR MO 7A		KAONOULU RANCH HALEAKALA RANCH CO PIONEER MILL CO LTD ULUPALAKUA RCH CO LTD
#HONOLULU WBAP 703 R	1918 03 EWA 1919 02 MONOLULU 1924 02 MONOLULU	3 21 19 2 21 20 2 21 19	158 00 157 55 157 52	12 1	9A 110 M1D 110 M10	9A _ J	U S COAST + GEODETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU		8955 0	2 MAKAWAO 4 LAHAINA	4 20 54	156 40	1900	8A 8A	c	PIONEER MILL CO LTD
KAALAKEI 724.6 KAHANA 883 A	2146 02 HONOLULU 2269 02 HONOLULU 2462 01 KOOLAULOA	2 21 18 2 21 18 1 21 31	157 50 157 43 157 54	50 10 800	AB AB		H S P A EXP STATION MRS. MILLIE ZAPATA WAIAHOLE WTR CO LTD KAHUKU PLTN CO	WAIEHU CAMP 484 WAIMEE VALLEY 482 WAIKAMOI 449 WAIKAMUI DAM 336	9315 0	3 WAILUKU 4 WAILUKU 1 HANA	3 20 55 4 20 57 1 20 52	156 32	320 300 1200 4320	6A 6A WM VAR		WAILUKU SUGAR CO WAILUKU SUGAR CO E MAUI IRR CO LTD MAUI COUNTY WTR DEPT
KAILUA FIRE STA 791.3 KALIHI RES SITE 777	2570 01 KOOLAULOA 2683 01 KOOLAUPOKO 2960 02 HONULULU 3056 01 KOOLAUPOKO	1 21 41 1 21 24 2 21 23 1 21 19	157 57 157 45 157 50 157 41	25 10 910 1380	AB MIO	0	KAILUA FIRE STATION BOARD OF WTR SUPPLY HAWAII NATIONAL GUARD	WAIKAPU 390 WAILUA IKI 348 WAILUKU 392	9376 0	I MAKAWAO 3 WAILUKU I HANA 3 WAILUKU	1 20 49 3 20 52 1 20 48	156 09	470 2630 200	6A 8A 8A		WAILUKU SUGAR CO S EAST MAUI IRRIGATION CO ST. ANTHONYS BOYS SCH
KANLUHE MAUKA 781	3113 01 KOOLAUPOKO 3123 01 KOOLAUPOKO	1 21 25	157 49 157 47	225	7A 7A 8A		STATE HOSPITAL KANEOHE RANCH CO	WATOPAT RANCH 256	9765 0	2 HANA	3 20 54 2 20 38	156 12	220	oc		HALEAKALA RANCH CO
KAPAKA MAKAI 905.1	3220 01 KOOLAULOA 3268 02 HONDLULU	1 21 36 2 21 21 5 21 35	157 54 157 52 158 11 157 59	614 20 1180	8 A 7 A W I	1	GEORGE H. SWIFT KAMEHAMEHA SCHOOLS WAIALUA AGR CO LTO WAIALUA AGR CO LTO	AMUA UMI 75 AWINI 182.1	0190 0	5 N KONA 1 N KOMALA	5 19 38 1 20 10	155 47 155 43	5220 1870	Mr Wil		GREENWELL RANCH KOHALA DITCH CO LTO
KAWELA HAUKA 936.3 K MOG AMP 8 854	3741 05 WAIALUA 3825 02 KOULAUPOKO 4318 05 WAIALUA 4766 05 WAMIAWA	5 21 34 1 21 40 5 21 33 5 21 30	157 59 158 00 158 05 157 58	1050 725 1160	7A 8A	X	WAIALUA AGR CO LTO MAWAII NATIONAL GUARO WAIALUA AGR CO LTD C + F OFFICER HEOG	EAST HONOKANE 183+2 HAINA 214 HAKALAU 142 HALEMAUMAU 52	0840 0	1 S KOHALA 1 HAMAKUA 2 S HILO 3 KAU	1 20 10 1 20 07 1 20 06 2 19 54 3 19 24	155 43 155 28 155 08	4240 461 105	7A 7A 7A	С	KOMALA DITCH CO LTO HONOXAA SUGAR CO PEPEEXEO SUGAR CO. HAWAII NAT PARK
CUALDALEI 804	5647 04 WAIANAE	4 21 26	158 08	113	7A W1	X	USN AMMUNITION OEP	HALEPIULA 117 HALEPOHAKU 111 HAWAII VOLCNS NP HG 54	1060 0 1065 0 1303 0	1 HAMAKUA 2 HAMAKUA	1 19 56 2 19 46 2 19 26	155 24	3648 5770 9220 3971	MO MO SA SA		KUKAIAU RANCH CO STATE DIV+ OF PARAS HAWAII NAT PARK
LULJK 781.7 LUNALI O HOME 724.2 MAKAHA KAI 796	5655 01 KOOLAUPOKO 5675 02 HONOLULU 5766 04 WATANAE	1 21 24 2 21 17 4 21 28	157 49 157 42 158 13	240 40 25	7A 7A	1	MILNOR LUM LUNALILO HOME CAPITAL INVEST CO	HAWI 168 A	1339 0	1 N KOHALA 2 S HILO	2 19 43	155 50	600	7A MIO MIO M	E HDC J	KOHALA SUGAR CO
MAFAHA VALLEY BOD.I A MAFAPUU POINT 724 MANOA 712 MANOA TUNNEL 2 716	5781 04 WATANAE 5800 02 HONOLULU 6122 02 HONOLULU 6130 02 HONOLULU	4 21 29 2 21 19 2 21 19	158 12 157 39 157 49	160 538 220	8A 8A 8A		CAPITAL INVEST CO U S COAST GUARO MRS.JOHN H.BEAUMONT	HOLUALOA BEACH 68 / HONAUNAU 27	1562 0	4 N KONA 4 N KONA 4 S KONA	4 19 38 4 19 37 4 19 27	155 59	3220 14 1089	MO 7A 7A		STATE DIV OF FORESTRY VARIOUS RANCH HANDS MRS MALAE W HUA
MAUNAWILI 787.1	6222 01 KOOLAUPOKO 6395 02 HONOLULU	2 21 20 1 21 21 2 21 21	157 48 157 46 157 54	650 410 20	9A	ž.	BOARD OF WTR SUPPLY EXP. STA. M.S.P.A. JOHN A ROXBURGH	HONOHINA 137 HONOKANE 181.1 MONOMU MAUKA 138	1960 0	2 N HILO 1 N KOHALA 2 S HILO 4 N KONA	2 19 56 1 20 09 2 19 51	155 44	300 800 1100 6250	7A 7A 7A MO	c	PEPEEKEO SUGAR COMPANY KOHALA OITCH CO LTO PEPEEKEO SUGAR CO.
NUUANU RES 4 783 NUUANU RESERVOIR 5 775A	6553 Q4 WAIANAE 6928 Q2 HONOLULU 6933 Q2 HONOLULU	4 21 31 2 21 21 2 21 21	158 09 157 49 157 50	4025 1048 410	MID	-	FEDERAL AVIATION AOM. 80ARD OF WTR SUPPLY 80ARO OF WTR SUPPLY	HUALALAI 72	2151 0	4 N KONA	4 19 40 4 19 42 4 19 45	155 52	8190 1960	MO 6A		STATE DIV OF FORESTRY STATE DIV OF FORESTRY HUEHUE RANCH
PALOLO VALLEY 718 PAUDA FLATS 784	7150 05 WATALUA 7664 02 MONOLULU 7810 02 MONOLULU	5 21 34 2 21 20 2 21 21 3 21 25	158 02 157 46 157 48	1060 995 1640	7A 7A MID MIO	C	WAIALUA AGP CO LTO BOAPO OF WTR SUPPLY BOAPO OF WTR SUPPLY	KAAWALOA 29 KAHIAWAI 3.4	A 2249 C A 2327 C 2512 C	4 N KONA 3 KAU	3 19 08 4 19 30 3 19 08	155 55	1340 1330 3700	7A 8A	E	HUTCHINSON SUGAP CO CAPTAIN COOK COFFEE CO. RUSSELL P. SMITH
PORTLOCK RUAD 724.4 PRI WAHIAWA 820.2 A	7933 03 EWA 8126 02 MUNULULU 8172 05 WAH!AWA 8310 01 KOOLAULOA	3 21 25 2 21 17 5 21 28 1 21 35	157 58 157 43 158 01	240 6 700 20	7A 8A 8A	1	JAMES MUMENO MPS ALFREO FRANCO: JR. PINEAPPLE RESEAPCH INST	KAINALIU 738 KALAPANA NO 1 67.8 KAMAOA NO 2 5		N KONA 2 S HILO 3 KAU	4 19 32 2 19 20 3 19 02	155 40	1500 10 1375	7A 7A VAR WI		KONA EXPERIMENT STA MAWAII VOLCANOES NAT PK HAWAIIAN RANCH CO
PUNCHBOWL CPATER 709 A	8316 02 HONOLULU 8600 01 KOULAUPOKU	2 21 19	157 51	360	8A 7A		NAT MEM CEMETERY REV R CULLINAN		3077 0 3078 0 4 3300 0 4 3369 0		1 20 01 5 20 00 3 19 17	155 40 155 40 155 27 154 52	2670 2665 2140 290	6A 6A 8A 6A VAR		PARKER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOAPO OF WATER SUPPLY
TANTALUS PEAR 700 TANIALUS 2 780.5 WUNIV OF HAWAII 713 A	8730 02 HONOLULU 9738 02 HONOLULU 8815 02 HONOLULU	1 21 22 2 21 20 2 21 20 2 21 18	157 50	2000 1325 79	7A	1	REV R CULLINAN BOARD OF WATER SUPPLY P. E. WHITE DEPI OF GEOSCIENCE	KAUMANA 88.1	3510 0	2 5 H1LO	2 19 41	155 09	1123	VAR	k	SMIGEO MASUYA MONOKAA SUGAR CO
wAIAHJII 837 A	8945 05 WAHLAWA 8964 01 KOOLAUPUKU ⊋185 02 HONOLULU 2195 05 WALALJA	5 21 30 1 21 28 2 21 17	158 03 157 53 157 47	954 745 40	7A 8A 7A	i	WAIALUA AGR CO LTO WAIAMOLE WIR CO LIO SPENCER TINKER	KEALWA CAMP 22.1 KEALAKEKUA 26.2	3925 0	4 S KONA	2 19 38 3 19 14 4 19 30 2 19 55	155 02	280 1700 1450	1W AB AB AB AB	c	PUNA SUGAR CO HAWAIIAN AGRI. COMPANY MISS AMY GREENWELL
JAIANAE 798 A	9231 04 WALANAE	2 21 17 5 21 35 4 21 27 4 21 29		32 20	7A 7A 8A	1	WAIALUA AGR CO LTO CAPITAL INVEST CO	KEANAKOLU CAMP 124.2 KEHENA 181.2 KEHENA RESEPVOIR 176.1	A 4250 0	2 HAMAKUA 1 N KOHALA 1 N KOHALA	1 20 07	155 45	5280 3840 2520	WI 7A	c	STATE DIV. OF FORESTRY KOHALA DITCH CO LTD KOHALA DITCH CO LTD
#AIA#A 836 A #AIKANE 885 A	9261 03 EWA 9340 01 KOULAUPOKO 9397 02 HONOLULU	3 21 28 1 21 30 2 21 16	157 56 157 53 157 49	800 760	WI WI SA SA		WAIAHOLE WTP CO LTD WAIAHOLE WTR CO LTO HONOLULU ZOO	KIPA 89.2		3 KAU 2 S HILO 1 N KOHALA	3 19 04	155 38	1925 1490 309	MO W1		STATE DIV OF FORESTRY MAUNA KEA SUGAR CO. KOHALA SUGAR CO
WAILUPE RESERVOIR 170 A WAILUPE VLY CH 723.6	9495 02 HONOLULU 95 U 02 HONOLULU	2 21 18 2 21 18 1 21 21	157 45 157 45 157 44	170 180 60	NI BA	ĸ	BOARD OF WIR SUPPLY WAILUPE VALLEY SCHOOL ST DIV WIR + LAND DEV	KOHALA MAULILI 176 KOHALA MISSION 175.I	4675 C 4680 C	1 N KOHALA 1 N KOHALA 1 HAMAKUA	1 20 13 1 20 14 1 20 05	155 47 155 48 155 38	960 537 720	7A 7A W1		KOHALA SUGAP CO K. LYMAN BOND HONOKAA SUGAR CO
MAIPAHU 750 A	9593 05 WATALUA 9738 03 EWA 9980 02 HUNDLULU	5 21 38 3 21 23 2 21 10	158 04 158 01 157 47	420 59 1100	7A 8A MID	£	WAIALUA AGR CO LTD DAMU SUGAP CO BOAPD OF WIR SUPPLY	KUNA AIRPORT 68.3 KUKAIAU 222 KUKUIHAELE HIC 199	4764 0 4815 0 4928 0	14 N KONA 11 HAMAKUA 11 HAMAKUA	4 19 39 1 20 02 1 20 07	156 01 155 21 155 35	840 980	8A 8A 6A 6A	c	HAWAIIAN AIRLINES HAMAKUA MILL CO HONOKAA SUGAR CO
	2896 OI MOLOKAI	1 21 12	156 59	30	AB.		KALAUPAPA SETTLEMENI	KUKUIHAELE MILL 206 J	4938 C	1 HAMAKUA 2 S HILO 5 N HILO	1 20 08	155 34 155 18 155 27	300 5170 8300	8A 8A W1	c	HONOKAA SUGAR CO ST DEPT OF SOCIAL SER U S WEATHER BUREAU
KAMALO MAUKA 542.6 KAUNAKAKAI 536 FAUNAKAKAI MAUFA 536.5	3046 OI MOLOKAI 3541 OI MOLOKAI 1547 OI MOLOKAI	1 21 04 1 21 06 1 21 06	156 52 157 01 157 01	60 12 70	6.A	2	W. J. CARSTEN HOLOKAL PANCH LTD	LALAMILO FLD OFF 191.1 LANIMAU 68 C	5021 0 5260 0	S HILO S KOMALA	2 19 35		5735 2615 1530	WI BA	c	ST DEPT OF SOCIAL SER STATE DEPT OF L + N PES KONA EXPERIMENT STATION
HAR I FINI 142	4394; 01 MOLOKAI 4778: 01 MOLOKAI 6138 01 MOLOKAI 6190: 01 MOLOKAI	1 21 12 1 21 09 1 21 04 1 21 08	157 12 157 02 156 48	560 878 20	WK. 7A 8A	t	MOLOKAI GENERAL HOSPITA MOLOKAI RANCH: LTD: DEL MONTE CORPOPATION H S P A	MANUKA 2 MAUNA KEA REACH	5460 0	2 PUNA	2 19 29 3 19 07 1 20 01	154 54 155 50 155 50	650 1760 103	8A 8A 8A	C	STATE DIV. OF PARKS STATE DIVISION OF PARKS MAUNA KEA BEACH HOTEL
P OHOAU RANCH 542+1	6534 UI MOLOKAI 8549) OI MOLOKAI	1 51 08	157 13 157 06 156 44	1075 450 700	9A 8A 6A		LIBBY MCNEILL + LIBBY   ALOHA AIRLINES PUUOHOKU RANCH	MIODLE PEN 147.1	A 6268 C	14 N KONA 11 N KOHALA	5 19 32 4 19 37 1 20 06	155 35 155 58 155 50	11146 475 1380	MIO MID 8A VAR		U S WEATHER BUREAU KONA EXPERIMENT STA KAHUA RANCH
MATROL 1 540 A	9404 01 MOLOKAI	1 21 08	156 55	3550	Tw	Ĭ.	MOLOKAI RANCH	MOAULA 18	A 6407 C	75 KAU	3 19 11	155 30	600	MO		HAWALLAN RANCH CO

STATION	INDEX NO.	DIVISION	DISTRICT	NAGE ‡	TITUDE	ONGITUDE	VATION			ANI	D	OBSERVER	STATION	INDEX NO.	DISTRICT	INAGE 1	TITUDE	ONGITUDE	VATION	T	ME A	ES	OBSERVER
	IN	DI		DRA	LA	lo lo	ELE	TEMP	PRECIP	EVA.P.	SPECIAL INE ROTTS			IND		DRAI	LA	LON	ELE	TEMP	PRECIP	SPECIAL	
NAPOOPOO 28 NAULU FOREST 38.6 NIULII 179 OOKALA 223 OPIHIHALE 2 24.1	A 6588 A 6693 6731 A 6806 7131 7166 A 7185 7204	01 02	S KONA PUNA N KOHALA N HILO S KONA	3 4 2 1 2 4 2	19 04 19 28 19 19 20 14 20 01 19 16 19 34 20 05	155 07 155 35 155 55 155 45 155 45 155 57 155 26 155 26	673 395 1400 75 430 1270 945 415	71	6A 8A 7A VAR 6A 7A 7A VAR 7A			PUNA SUGAR CO HUTCHINSON SUGAR CO KONA EXPERIMENT STA HAWAII VOLCANOES NAT PR KOHALA SUGAR CO MISS C LEONARD BOARO OF WATER SUPPLY PAAUHAU SUGAR CO HASA CO HATER SUPPLY HAWAU SUGAR CO HAMARUA MILL CO	PUU LEMUA 73 PUU MALI 113 PUUOKUMAU 167 PUU OO 82	A 8460 0 A 8515 0 A 8548 0 8550 0 A 8555 0 A 8590 0 A 8675 0 8679 0	1 HAMAKUA 1 N KOHALA 2 S HILO 5 N KONA 2 S HILO 3 KAU	4 1 1 2 5 2 3	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57	155 36 155 49 155 26 155 50 155 23 155 51 155 12 155 41 155 41 155 23	4850 6960 1800 6340 2520 2340 400 305		MO MO 7A 6A 7A WM WI	c	STATE DIV OF FISH-GAME GREENELL RANCH KURAIAU RANCH CO KOHALA DITCH CO LTO W. H. SHIPMAN. LTO OILLINGHAM RANCH INC BOARD OF WITS SUPPLY HUTCHINSON SUGAR CO FEDERAL ELECTRIC CORP KURAIAU RANCH CO
PAPAIROU 144-1 PAPAIROU HAURA 140-1 PEPEERE O MAKAI 144 PIIHONUA 89 POHAKULOA 107 PUAKO 95-1	7457 77643 7711 7721 8000 A 8051 A 806	000000000000000000000000000000000000000	S KAU 2 PUNA 3 KAU 2 PUNA 3 KAU 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 HILO 2 HAMAKUA 5 KOHALA 1 HAMAKUA	2 2 2 2 5	19 30 19 22 19 47 19 47 19 51 19 44 19 45 19 59	155 25 154 51 155 28 155 08 155 08 155 01 155 32 155 32	670 5000 200 1270 100 1730 6511		6A 6A MO 7A 7A 7A MO VAR 6A MO	c	:	HAWAIIAN AGR CO PUMA SUGAR COMPANY HAMAIIAN RANCH CO., INC., HAUNA KEA SUGAR CO., PEPEKEO SUGAR CO., PEPEKEO SUGAR CO., STATE GIVISION OF PARKS ERVIN H. RAPP KUKAIAU RANCH CO	UPOLU POINT USCG 159. WALAKEA SCO 88.2 WALKANONOULA 178.6	9025 0	1 N KOHALA 2 S HILO 1 N KOHALA	2	19 40	155 53 155 08 155 47	1 1050 3830		8 A 7 A	c	U S COAST GUARD SHINICHI KANESHIRO KAHUA RANCH

T DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO DYTRA-ISLAND DIVISIONS) LANAI: 1-(NO DYTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 4-WESTERN 5-CENTRAL 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to be Environmental Science Services Administration Regional Climatologist, P. O. 800 3560, Homolulu, Hawaii, or to any Weather Bureau Office mear you. Additional prepitation data are contained in "BOURLY PRECIPITATION DATA HAWAII".

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bullstin are Temperature in F., precipitation and evaporation in inchee, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees directions and speeds divided by the number of observations

OBSERVATION TIME. Data in the "Wonthly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Mind" table are for the 24 hours rediling attime of observation unless indicated otherwise by reference letters in the Station ladex. The Station index shows observation time in local standard time.

EMAPORATION is measured in the stindard Weather Hureau type pain of 4-foot diameter unless otherwise shown by footnots following the "Evaporation and Wind" table. Hard and Wind "table refer to extrems of temperature of water la pan as recorded during 24-bours ending at time of observations.

NORMALS for all stations are climatological standard normals based on the period 1931-1960

STATION NAMES: Hawaii state key numbers are included following station names in the several tables.

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates.
- ++ Highest observed one minuts windspeed This station is not equipped with an instrument to measure fastest mile data
- . Amount included in following measurement, time distribution unknown
- A The letter A" where following station mass in "Climicological Data" table, "Daily Precipitation" table, and "Station bedse", indicates amount carried in the "Drail" column is for the period from last measurement of a preceding most through the last smanurement of the current month. See "Daily Precipitation" table of this and previous bulletims for dates of measurement. Where gages are read only once monthly, measurements made on the first of a south are credited to the last day of the preceding month.
- H Adjusted to a full month.
- J "Supplemental Data" table
- One or mors days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record
- T Tracs, an amount too small to measure
- V includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after rain.
- th Special Column of Station index indicates Recording Raio Sage Station. However, proceeding the processed for special purposes, published later in the "Mourly Procletation Bate" builetin. If daily assume are published in "Climatological Bate" builetin they are reseparate mon-recording gage, except where indicated by reference "R". Such amounts may differ from amounts published from the recording gath "Bourly Precipitation Data" builetin.
- MO Gage read once monthly, usually on the last day
- OC Gage readings at periods varying from a few weeks to several months
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset
- VAR Observation time is variable
- WI Gage read weekly or irrsgularly only.
- WM Gage read weekly and last day of month.
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground, however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building

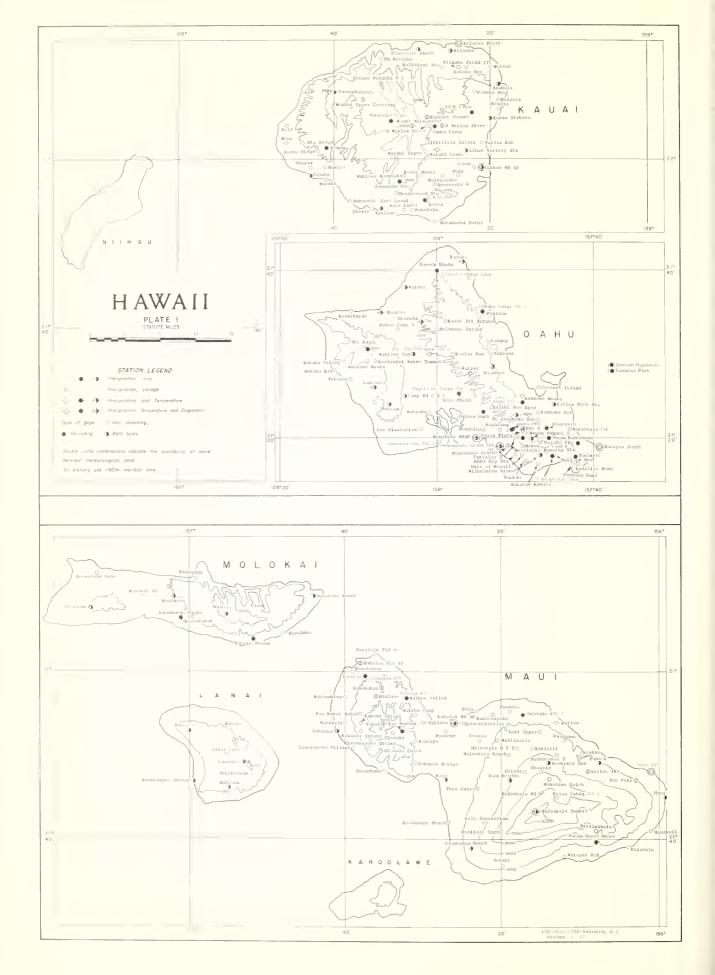
Stations appearing in the tables with no data were either missing or received too late to be included in this issue.

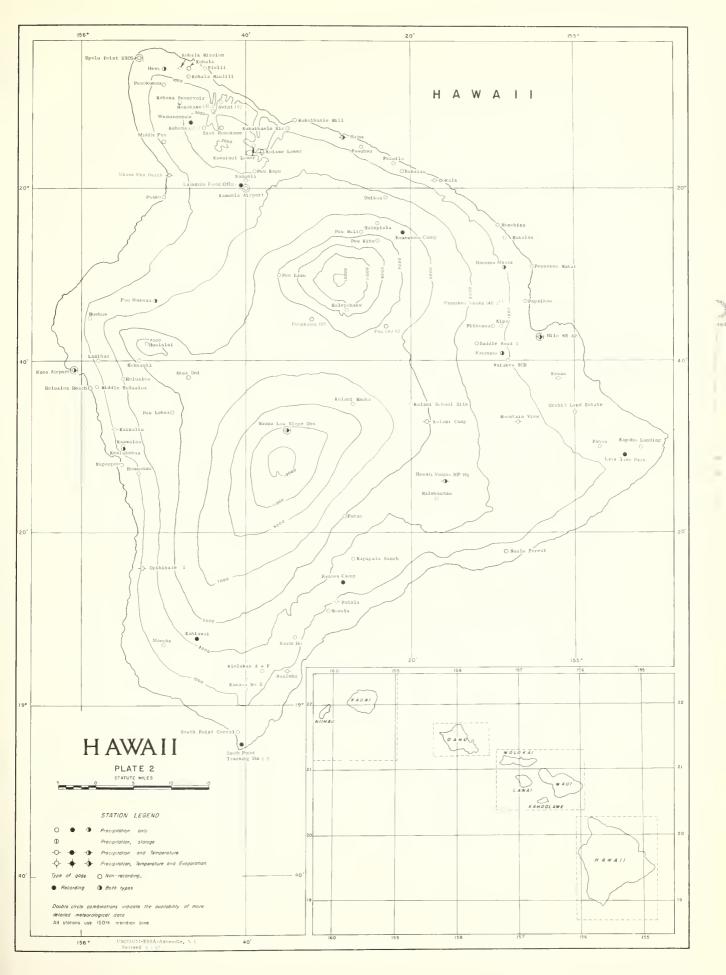
General weather conditions in the U. S. for each month are described in the publicatione MONTHLY WEATHER REVIEW. CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the bistory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Dureau stations may be found in the latest annual issue of Local Climatological Data, price 16 cents. These publications may be the publicatione may be considered when the substance of Local Climatological Data, price 16 cents. These publications may be found in the publication of Local Climatological Data, price 16 cents.

Subscription Price 20 cents per copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington, D. C. 2004.

1/SCOMM-ESSA-ASHEVILLE -6/28/68-890









CLIMATOLOGICAL DATANIVERS/TY

U.S. DEPARTMENT OF COMMERCE

C R SMITH, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE

AUG .M. 1965

HAWAII

APRIL 1968

Volume 64 No. 4

## CLIMATOLOGICAL DATA

															1	1				0				
					Төг	npera	ature								_	TE	CH.	Preci	takandan .	1				
											N	o. of	Days			_	o11.	ά		w. Sleet		No	o. of I	
Station		, A	e #	2	Departure From Normal	**				Days	Ma	x.	Mi	n.		Departure From Normal	st Day			bepth	ŀ	More	More	More
		Average	Average Minimum	Average	Separti rom N	Highest	Date	Lowest	Date	Degree	90° of Above	2° or	2° or elow	o or	Total	Separt	Greatest	Date	Total	Max. Depth on Ground	Date	6	50 or 1	1.00 or
		1 72	74	_		-	-	-	-	Н .	0.1	0.88		0 #		ны		-			-	Ė	÷	
ISLAND OF KAUAI																								
ANAHOLA 1111	A	40 1	., ,	59.6		92	18+		6			0			6.77	2.66	3 / 9		.0			8	4	3
KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135	A	68.1	51.1	27.0		12	104	42	0		0		0	٥	8.68 9.13 11.03	3.22	3.48	,	.0	0		0	1	,
KILAUEA POINT 1133		79.0	68.3	73.7		8.5	24	60	9		0	0	0	0	7.43		2.12		.0	0		14	5	2
KOLDA 936 Lihue wa Airport Mana 1026	A R	78.1	66.7	72.4	1	81	20+ 30+		11		0	0	0	0	1.84	- 1.50	.50	19	.0	C	)	3	1	0
N WAILUA GITCH 1051 PH WAINIHA 1115	A	84.6	64.1	74.4	1.7	0.0	304	79	3		"		U	U	17.08 9.76		1.81	20	.0	C	)	17	6	4
PUEHU RIDGE 1040															2.49		1.15	22	.0	c		5	2	1
WAHIAWA 930 WAIAHI LOWER 1054	Δ	78.3	62.1	70.2		81	16+	5 5	7		0	0	0	0	7.60		.91	20	.0	0	)	19	5	0
WAIMEA 947 ISLANO				70.1											1.07	06	.02	24	.0		1	,	1	U
				,011											0141									
ISLAND OF DAHU																								
HONOLULU OBSERV 702.2 Honolulu waap 703	R	83.6	69.8	76.7	2.5	87	7	64	9		0	0	0	0	3.31	1.83	1.26	17	.0			8	3	1
KAHUKU 912 KANEDHE MAUKA 781	À	79.9M 79.I	68.4M 67.7	74.2M 73.4	1.0				11+		0	0	00	0	3.89	1.04		1	.0			15	5	1
KODLAU OAM 833															11.64				.0			21		
LUALUALEI 804 MAKAPUU POINT 724		78.3	67.7	75.1 74.0			29+	61	14+		0	0	0		4.78 2.91 10.08	1.13	2.22 .51	1.5	.0	(	0	7 9 21	1 6	0 3
NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718	Δ	78.5	63,5	71.0	3.0	84	6	58	10		0	0	0	0	10.48	6.52			.0		0	22		4
PRI WAHIAWA 820.2	A	81.2	63,2	72.2		85	22+	58	10		0	0	0	0	7.65		3.76		.0		0		3	2
PUNALUU 884 WAHIAWA DAM 863	A														6.18				.0	(	O I		-	
WAIAHOLE 837 Waialua 847	A	80.2	64.1	72.2	.7	84	I	59	3+		0	0	0	0	3.58			20	.0		0	9	1	1
WAIKIKI 717.2 WAIPAHU 750	Δ	85.5	68,6	77.1		90	7	63	10+		1	0	0	0	1.36	1.80		20	.0		0	4	0	0
ISLANO				74.0											7.45				.0					
# # # ISLAND OF MOLOKAI																								
13 CAND OF HOLONAS		1													0.00									
KUALAPUU 534 Mapulehu 542	A														6.23	3.16	2.6		.0		0	12	3	1
MAUNALDA 511 MOLOKAI AP 524	A	78.2	68,2	73.2		81	24+	61	10		0	0	0	0	2.59	2,26	1.12		.0		0	5	2	0
ISLANO				73.2											4.53				.0					
ISLAND OF LANAI								ì																
LANAI CITY 672	A	74.2M	65,4M	68.8M	1.8	78	21+	56	10				0	0	15.01	10.09	2.60	18	.0		0			
ISLANO	A	74.25	05,44	68.8	1.0	"									13.01				.0					
ISLAND OF MAUL																								
HALEAKALA 8 E S 434 Haleakala RS 338	A	59.7	43.1	51.4		64	2		11+				0			l .	4.70	10	.0		0	15 17	- 5	6
HANA AIRPORT HONOKOHUA 493	A	80.7	68,2	74.5		84	7+		10		0				5.75	2.57		1	.0	1	0	17		3
KAHULUI W8 AP	R	62.3	65,9	74.1	1.5		23+	i	11+		0		0		16.73			19	.0		0	23		
KAILUA 446 KEANAE 346 KIPAHULU 258	A	78.3	62,8	70.6	1.5	0.1	200	,,,			"		J		32.70	7.60	12.5	16	.0		0	18	12	4
KULA SANATORIUM 267 LAMAINA 361		70.3	56.7 67.2	63.5 75.3	1.5	76 88		52 61	10+ 10+		0				12.14	9.45	2.7	9	.0		0	15	9	0
PAIA 406							12	40	10				٥	0	4.03		1.7	20	.0		0	9	2	1
WAILUKU 392		81.1	68,6	69.2	2,3	6.5	13	00	10		"		J	. "	13.07			1						Ū
ISLANO		1		07.2		I					1				22.01									

### CLIMATOLOGICAL DATA

ntinued																				HAW APR			196	8
					Ter	nper	ature											Preci	pitation					
											N	lo. of	Days						Snor	w, Sleet		N	o. of	Da
Station		Average	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	<b>Бе</b> дгее <b>Ба</b> ув	Ma	32° or X	Mi		Total	Departure From Normal	Greatest Day	Date	Total	Max. Depth on Ground	Date	.10 or More	or More	
* * * 1SLANO DF HAWAII		×Σ	4Σ	4	ΔË	H	Ď	Ä	Ď	Ā	90 A1	32	32	0 0	F	OÑ	U	ď	Tc	Σö	Ã	11.	.50	
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT HUEHUE 92A KAINALIU 738	R A	78.6 67.1 80.7	63.7 52.7 66.9	71.2 59.9 73.8	1.2 .8 2.2		23+ 22 20	42 62			0000	0000	0000	0000	13.16 19.85 29.68 15.13 10.96	5.49 11.45 17.76 12.12 5.30	1.73 3.32 5.02	24 16	•0	00000		19 20 22	9 12 13	1
KAMUELA AIRPORT KEAAU 92 KEALAKEKUA 26.2 KEMENA RESERVOIR 176.1 KONA AIRPORT 68.3	Δ	72.0M 82.2 78.2 82.3	51.1M 64.1 63.0 67.1	61.6M 73.2 70.6	2.1	75 88 81 86	14 22+ 8+	61 56	18 10 10		0000	0000	0000	0000	12.06 31.97 10.51 16.87 5.50	19.55	4.28 5.73 4.18	24 11	•0	0 0 0		13 19 13	5 16 7	1
RUKUIHAELE HIC 199 RULANI CAMP 79 MAUNA KEA BEACH PAHALA 21 POHAKULOA 107	Δ	64.5 85.4 79.0	47.9 68.7 63.4	56.2 77.1 71.2	1.4	90 92 83	3	39 62 59			1 3 0	0 0 0	000	0 0 0	12.47 22.46 3.04 9.37 1.28	3.24 6.21	2.25 4.56 1.31 2.21	25 11	•0	0000		18 24 7 9	10 14 1 7	
UAKO 95.1 UU WAAWAA 94.1 MIKOA 118 AIAKEA SCO 88,2	Δ														2.69 8.67 15.66 43.74	6.37	1.22 2.15 3.56 5.48	24	.0	0 0 0		23	2	1
ISLANO				69.1											14.99				.0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 92° ON THE 3D AT MAUNA KEA BEACH, HAWALI
LOWEST TEMPERATURE: 28° ON THE 10TH AT MAUNA LOA SLOPE OBS, HAWALI
GREATEST TOTAL PRECIPITATION: 48.25 AT KIPA 89.2, HAWAII
LEAST TOTAL PRECIPITATION: .00 AT TWIN GATES 261.3, HAWAII
GREATEST ONE-DAY PRECIPITATION: 17.57 ON THE 16TH AT HANA AIRPORT, MAUI

#### HAWAII - APRIL 1968

#### SPECIAL WEATHER SUMMARY

Damaging rains, frequent interruptions to the trades, and the continued occurrence of funnel clouds characterized the month.

April's most severe weather was the torrential rain (a result of upper atmospheric and surface low pressure systems) which severely damaged roads, culverts, bridges, and crops on east Maui during the late evening of the 15th and early morning of the 16th. Flash flooding caused 19 landslides and 6 bridge washouts on the Hana Belt Road between Kaeleku and Kipahulu. as huge boulders and debris clogged streams, forcing them to seek new routes to the ocean. Two 3-ton culverts were torn from East Honomaele Stream, one being carried 1/2 mile downstream and deposited in a pasture near Honomaele. Road washouts isolated the village of Kaupo. Considerable damage was done to plantings of cabbage, lettuce, and tomatoes.

At Hana on the 15th, 1-1/2 inches of rain fell in 15 minutes and nearly 5-1/4 inches from 9:40 p.m. to 11:15 p.m. Hana Airport reported 16 inches in the 24 hours ending at 8 a.m. on the 16th. Over 3-1/2 inches fell at Kaupo Ranch from 10:50 to 11:50 p.m., and 1.8 inches in 20 minutes. Army Engineers estimated \$288,000 damage to public roads, bridges, and culverts, and \$23,000 to private facilities on east Maui.

An intense thundershower on the afternoon of the 16th dropped over 3 inches of rain an hour over parts of central and south-central Oahu, but appears to have done no damage. Wahiawa reported 3.35 inches of rain from 4:15 to 5:20 p.m., and downtown Honolulu nearly 1.9 inches in a 50-minute period.

Heavy thundershowers, which dumped almost 4-1/2 inches of rain on Lalamilo Field, Hawaii Island, from 3 p.m. to 6:50 p.m. on the 20th, did damage estimated at \$30,000 to \$40,000 to roads in the Waimea and Kawaihae areas and \$125,000 damage to leafy vegetable crops

in the Lalamilo and Pukapu areas (near Waimea), where it also washed away 150 acres of valuable topsoil. Heavy rains also fell on northeastern and eastern Maui, including areas affected by the floods of the 15th and 16th, but little or no damage was reported.

Several other weather events of interest occurred during the month.

On the 9th and 10th, a small, intense surface low pressure area in the vicinity of the islands resulted in a variety of weather. On the night of the 9th winds of 40 to 50 m.p.h. did scattered crop and tree damage in exposed areas, and lifted the roof from a house at Waianae, Oahu; while on Haleakala Summit, Maui, 9 inches of snow fell, accompanied by 29 temperatures and by gusts of 46 m.p.h., which whipped the snow into 5-foot drifts. Snow was reported down to the 8,000-foot level. Pea-sized hail fell for 5 minutes at Kulani Camp, Hawaii Island, at 3:47 p.m. on the 9th, and at Upolu Point, Hawaii Island, on the 10th.

At 5:20 p.m. of the 10th, residents of northwest Maui reported five funnel clouds offshore moving towards that island; and on the 12th a waterspout was observed touching the sea surface off McGregor's Point, southern Maui.

Honolulu Airport had the lowest "percentage of possible sunshine" (40 percent) ever recorded in April since records began in 1951, and morning haze and smoke were noted during days when the trades were absent. Hilo's 17 percent of possible sunshine was only half that station's April average.

Monthly rainfall was well above normal on all islands, with every gage on Lanai and southern east Maui, and many on Hawaii Island, reporting from 3 to 9 times their monthly means. New April rainfall maximums were set by a number of stations having long periods of record.

# HAWAII - APRIL 1968

### SPECIAL WEATHER SUMMARY - CONTINUED

Stations With More Rain in April 1968 than in Any Previous April

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest April Total	April 1968
MAUI			
Kipahulu	67	23.04"	24.58"
Waiopai Ranch	69	13.77	15.17
HAWAII			
Ahua Umi	44	7.30	10.30
Holualoa Beach	47	7.59	7.72
Honuaula	38	9.40	18.40
Kamuela	77	12,64	13.52
Napoopoo	27	6.96	9.16
Puu Laau	36	7.32	8.78
Puu Lehua	44	7.60	8.70

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Russell Dorr Acting State Climatologist P. O. Box 96811 Honolulu, Hawaii 96811

Day of Month Station 5 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 | 26 | 27 28 29 30 ISLAND OF KAUA1 ANAHULA 1111 BRYOE5WDUD 5TA 985 EAST LAWAI 934 ELEELE 927 HALAULA 1110 6.77 9.11 5.93 2.13 8.63 .28 .77 .42 5.30 .10 .15 HALENANAHO 1006 HUKIPO 945 LLIILIULA INTAKE 1050 INTAKE HAINIHA PC 1086 KALIHIWAI RES 1131 6.73 1.93 13.62 19.24 13.00 .12 2.38 .73 . 58 .24 . 21 . 2 3 02 1.72 1.78 4.13 .10 .90 1.50 3.90 .83 .07 ,06 1.30 1.12 .02 7.52 3,48 .04 .07 1,29 .40 .21 KILAUEA 1134 KILAUEA FIELO 17 1135 KILAUEA PDINT 1133 KOLO 1033 KOLOA 936 .16 .74 .04 2.61 3.14 .35 .34 .18 16 2,12 1,12 46 .1A .02 .55 .05 , 32 . 24 . 27 KOLDA MAUKA 994 KOLOKO RES 1137 KUKUJULA 935 LIMUE VAKIETY STA LIMUE 1020 .08 8.55 . 02 .08 .06 LIMUE WE AIRPORT MAKAMUENA POINT MAKAWELI 965 MANA 1026 MOMIHI UPP CROSS 1083 .07 .01 .97 12.94 .52 .14 , O F .32 1.29 .30 .08 1,20 1,36 2,72 2,40 .08 1,68 .08 .08 .08 MOLDAA 1145 NIU RIOGE 1035 N WAILUA DITCH 1051 PH WAINIMA 1115 PRINCEVILLE RANCH 1117 4.93 .99 3.80 .12 1.70 .16 .05 .10 .02 .33 112 1,50 26 .30 .17 1.20 .02 - 01 .56 .06 1.32 .06 PUEHU RIOGE 1040 PUHI 1013 RESEKVOIK 6 1004 WAHIAWA 930 WAHIAWA HOUNTAIN 990 2.49 2.73 5.26 2.60 15.75 .49 .51 .74 .07 WAIAHI LUNER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILWA KAI 1065 WAIHEA 947 .02 .02 .12 .02 .10 .45 .32 .13 .89 .05 .20 .22 .04 .15 1.85 .07 WEST LAWAL 931 4.72 .13 T .01 1.07 .04 .02 .30 .11 .28 . 22 ISLAND UF DAHU AIEA FIELO 625 761 BERETANIA PUMPING STA CAMP 84 807 CMURCH COLLEGE LAIE COCONUT ISLANO 840.1 .38 .08 .53 .12 .02 \* A 5 1,50 .02 .10 \* 02 .04 .13 .01 ENA PLANTATION 741 HELEMANO INTAKE 881 HOKULOA 725,2 HONOLULU OBSERV 702,2 HONOLULU WBAP 703 2.05 11.65 5.29 3.31 3.14 4.90 T .10 .02 .01 .02 .01 .03 MONDLULU SUBSTA 704 H S P A EXP STA 707 KAHANA 883 KAHUKU 912 KAILUA F1RE STA 791.3 .44 .38 .03 :11 12.66 1.02 .37 3.89 4.58 .03 06 .53 .70 .02 .18 .06 .02 02 .07 .19 .02 .09 2.12 .72 1.40 17.08 .06 .16 .01 .46 7.41 6.55 7.42 4.12 .90 .10 .20 .55 1.00 KAWATHAPAT 841 .30 .07 .02 .03 .25 - 30 KAWA1 [KI INTAKE 880,2 KEMOU CAMP 8 855 KODLAU OAM 833 LUALUALE1 804 LUALUALEI WTK TUNNEL 17.50 7.48 11.64 4.78 12.00 1.34 3.42 . 12 .03 .22 .04 LUNALILO HOME 724.2 MAKAMA KAI 796 MAKAMA VALLEY 800.1 MAKAPUU POINT 724 MANDA 712 . 22 .22 .43 1.23 .01 .03 , 53 ,23 .53 . 30 MANDA TUNNEL 2 716 HOANALUA 770 NUUANU RES 4 783 NUUANU RESERVOIR 5 775 OPAEULA 870 17.44 .52 1.50 .40 1.74 .02 . 36 10.08 8.77 10.48 .50 .12 .06 PALOLO VALLEY 718 PAUDA FLATS 784 PORTLOCK ROAO 724 PR1 WAMIAWA 820,2 PUNALUU 884 .02 2.02 .04 .28 .04 .16 .13 .17 4.66 7.65 .01 .09 .06 PUNCHBOWL CRATER 709 ST STEPHENS SEM 788 TANTALUS 2 780,5 UNIV OF MAWAII 713 WAHIAWA DAH 863 .06 4.10 10.02 10.37 5.25 6.18 .75 04 .11 14 .01 1,83 \* .12 .13 .16 1.60 .23 .92 MAIAHOLE 837 MAIALAE KAMALA 715 MAIALUA 847 WAIANAE 798 MAIANAE MAUKA 803 6.70 20.66 1.50 3.58 1.78 10.10 .05 .05 1.72 .20 .10 .02 .08 ٠ . 82 8.00 .18 .02 .02 .38 .02 .02 .05 .25 .02 .41 . 16 .06 , 20 . 20 .30 .45 .16 WAIMEA 892 7.1 WAIPAHU 750 WILHELMINA RISE 721 3.68

. 34

.02 .02

.02

Continued	_	_												Davi	of M	fonth.														APRIL	1968	-
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13 13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	0 31	-
15LANO DE MULOKAT				_																												
KALAUPAPA 563 KAUNAKAKAI 536 KEUNELE PEN5 551 A KUALAPUU 534 HAPULEHU 542			* .17	.69	.05	•41 •46	.09	.05	.04	.15	1.09	.10 .72 .16	.05	.16	,75	.06 .22	.02 .40	.13 .01 2.65	.26 1.22 .01 .42		2.44 • .18		2.00	.10	.11	.10					10	
MAUNALOA 511 A MOLDKAI AP 524 PUUOHOKU RANCH 542+1 MAIKULU 540 A	2.30		.32	.08 .08 .03	.01	.08 .25 .20	•		;57 5,50	.15 .08 .80	.80 .58 .40	.09	.01		2.00	.05 .06 .10 6.37	*02 T	.29	1.12	1,30	.25	.60	1.05 7 .05 4.64	; <sup>32</sup>	• 02	.02			.06	.04	.03	
15LAND OF LANA1																																
KANEPUU 690 KAUMALAPAU MARBOR 658 LANAI CITY 672 LANAI HALE 684 MAMANA 694	5.52 13.01 7.96		.03	* °2	.08	.04	:	:	1.12	02	*77 1:14	.96 .08 .60	.06 .18 2.26	.38	.07	•	+09 +22 +	:	2:14 :13 2:60 2:00	.67 .61	1,10	.05	1.57	.28	1.03	2.96	* * *	2.00	.01	.67 T + 10	- E	
MALAUEA 676 A MALAKEAKUA 685 A	5.39		•	٠	٠	•	:	:	,59	•	•	1.70	:	:	•	1.88		•	1.57	:	:	:	2,20	•	:	.88	•	•	•	.72	.03	:
ISLAND OF MAUL																																
AUMAM1 252 MALEAKALA 8 E \$ 434 A MALEAKALA 8AMCM 432 A MALEAKALA R\$ 336 MALEAKALA R\$ 338	12.64		*°5 7	1.16 .43 .20 .05	1.40 .58 .06	, 08 * T	* †14	.61 .01 .17	.05	.09 .07 .03	1.37	.05 1.80	• •12 •10	* T *	• •12 •10	3.28 .25 .05 .20	.28	1.98 2.27 1.51 1.65	.25	1.07	1.78	.86 .61 .25 1.60	.42 .31 .85	.25 .15 .05 .42	. 21	,36	.07	:11 :09 :46 1:42	.24	.03 1.70		
HALIIMAILE 423  HAMAKUAPOKO 485  HANA 354  HANA AIRPOR7  MANAHULI 281	4.64 5.48 12.65 26.65 27.20	•	.05 .11 .30 .12	.52 .77	.11 .02 .10 .09	.08 .02	.07	1.61 .21 1.10	.10 .18 .64 2.49	.02 .04 .89 1.29	.83 .86 .04 .25	.35 .19 T	.01	.02	7	.11 .39 1.60 .50	.10 .19 .96 17.57 2.72	.57	.04 .22 .27 .67	.06 .27 .29 .55	.99 •	.01 3.63 .86	.76 .30 .04	.14 .06 .39 .05	.26	.02 .23 • .16	.06 .50 T		* .01 T .10	15	04 30	
HOLUA CABIN 259,5  MONOKOMAU 480  MONOKOMUA 493  HONOKAMUA 693  HONOMANU GULCH 341  KAHOMA INTAKE 374	13.42 22.20 5.75 19.00 12.49		.02	25	•	*18 *172		:	.30	.19	* • 78 •	13 4,57		:	:	1.75	.79	3.40	.10	10 3,05	:		.99	42	.08	.09	3,90 .05 3,15	:	:	22.20 19	.03	
KAHULUI WƏ AP R KAILIKIK 436 A KAILUM 446 KAUMULA INTAKE 375 KEAMUM 410	2.00 19.85 18.73 8.43 2.95	.01	.31 .01	.62	.12	.26 •	:11	.06	.02 .55 .31	.13 .13	1.94 .50	.03 25	.01	.03	.03	1.12 1.32 .02	T + .84	1.44	1.47	.89 0 0 7	2.02	2.80 T	.26 4.87	.02 .48	.68	.68	1 • • 15	1.04	* .04	1,72	85	
KEANAE 346 KEAMAKAPU BEACH 260,2 KIHEI 311 KIPAHULU 258 KULA MEIGHTS 325,2	1.02 24,58 8.65	-	* T	.05	•	.01	•	.10	.01	.02	.54 .50 1.61	.34	:	:	.34	.06 .60		T 2.60 .23	.52	.01 .30 1.38	7 2.01 1.13	.77 1.00	:	• • • 31 • 97	* T .50	* T .64	.54	1.20	.20	* 32, T		
KULA SANATORIUM 267 LAMAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442	12.14 2.51 8.60 2.20 20.10						.90	.91	.02	2.71 .01	2.50	.04	• 04		• 65	.99 .59 .14	.45 •	.06	1.25	*20 *18 *	• •	.17 .51	.05 .05	.55 .19 .10	.39 +			•10 •	.19	.06 + 8. • 20.	,60	
MAHINAHINA 466 A NAKALELE FLO 60 497 A ULINUA 332 A OLOWALU 296 OLOWALU GULCH 377 A	5,54 6,89 14,44 2,18 6,20	1,06	• • • •	.19	.17 .18	.01	:	:	1.00 .34	.17	2.62	.04 .15	3 3	:	:	.80 3.58 1.24	.02 .47	* 3.07	.93	2,62	1,34	.05	1.71 1.88 .33	.07 .03		.10	.07		:	.15 .	20	
PAAKEA 350 PA1A 406 PANILEIHULU 259.2 A PAUWELA 490 A PCHAKEA BRIGGE 307.2	28.65 4.03 23.55 12.22 2.33	,06	.25 .14 .16	1.30 .44 .86	.17 .02 .21	.18 .02 .16	.56 T	.34	1.10	.17	1.62 .68 .74 .72	.10 .15 .15	.01	:	. 05 *	1.73 .08 .08	2.62	2.88 .10 .30 .29	1.50 .10 .41 .02	2.00 .11 .62 .01	2.75 1.77 •	.70	.10 4.54 .03	.63 .07	1.81		1.30	2.68 .01	.25	* 23 <sub>e</sub>	55	
POLIPOLI SPRINGS 267.2 A PUONUKAMUA 2 343 A PUU KUKUI MAKAI 472 A PUUNENE 396 SPRECKELSVILLE 400.2	15.43 48.00 13.40 1.26 1.62		.03		* * *	• • • 02 • 04	:	:	.01	.01	6,96 6 ,41 ,36	.20	:	:	:	.13	* * *02 *04	2.71 * • • •01 •06	* • • 05	.01	.08	.01	:	* * *	4.25 * • •04	* * T	:	.05	:	• 48. • 13.	.00	
TWIN GATES 261.7 A UNULELE 333 A UNUNEMANE 301 A ULUPALAKUA RANCH 250 WAHIKULI 364 A	.00 16,70 3.21 11.38 3.55		٠	.01	٠	•	•	٠	1.08	1.29	1.00 2.22	.37 .13	.04 .12		•	1.48	٠	.10	.20 .63	1.08	.61	1,20	* *35 *12	0 0 2,35 ,28	• •11 •05	•	•	•	* 02	• 16.	70	
#\$1EMU CAMP 484 #\$1MEE VALLEY 482 #\$1K\$MO1 449 #\$1K\$MO1 CAM 336 #\$1K\$PU 390		4,54	.07		2.54	,15 ,36 ,11 ,35	:13 :20 *	:	.24 .41 .56		.74 1.34 2.73		.04	:	.06	.76 .52		.04 .09 3.22 .04	.37 .65 .01	5 37 T	.09 .13 .07	.02	1.21	.53	2.74	# .20	.58	:	:	* 25. 3.48 .	52 74	
MÁTLUKU 392 MÁTOVÁT HÁNCH 256 A	2.75	.02	.04	. 25	T	, 33	. Q 5		.10	÷07	86, 88	.15	.10	*01 *		.21	6.00	.02	.23	.04	*°3		5,23	.03	.03 1.17	•	.63	.03		.31		:
15LANO UF MAWA11																																
AMUA UM1 75 AW1N1 182.1 EAST MUNDHANE 183.2 AWA1NA 214 MAKALAU 142	27.05	.32	.13	2.65 0 1.29 1.73	1.32	* .16 .16 .07	. 47		**************************************		* .36 1.68 1.29		.06	• • • • • • • • • • • • • • • • • • • •	:	.87 .13 2.02	.19		1.73	2.29 .90 .79		.30	.02	.60		.39	.07	•	.08	* 10, 2.66 23.70 1.60	01	
HALEHAUMAU 52   Δ     MALEPIULA 117   Δ     HALEPIDHARU 111   Δ     HAHAII VULCNS NP HQ 54     HAHI 165   Δ	12.06 10.37 7.08 19.85 14,39	.05	1.07	.24 .30	.11 .03	* * t	.07 .01	* * 1.10	* * .70	1.30 .09		* * .13 2,77	.81	.05	• • • 7	.30		.08	.30	1.55	2.10 .17	* • • • • • • • • • • • • • • • • • • •	, , , 5,58	.09	3.32 .01	3.17 .04	1.45	.60	1.47		06 37 16 01	
HILD H8 AIRPOOT R HOLUALUA 70 A HOLUALUA 8EACH 68 A HONAUNAU 27 HONOHINA 137	29.68 17.70 7.72 7.02 26.19	.87	.78 .05	.36 .02 .74	.07		.70 .02	1.34	.14 0 1.50 .60	7 • 1.19 •57	.60 1.82	.04 1.08 .10	2.00	.02	.02	2.39 1.32 1.20	5.02 0	•07	1.04	.13 0 1.08 .37	10 **5	.17 .10		3,45	3,57	2.09	2.35	2.15	* 1	7.70 •	19	
HONOKANE 181.1 HONOPU MAUKA 138 HONUAULA 71 A MUALALAT 72 A HUENUE 92A A	28.76 40.11 18.40 8.10 15.13	:		3.09		• 21 • 07 •	:		199 1:36	.17 .23 		3.02				.93		2.16	.07	3.67	.14		2.62	. 28	. 26	2,85	1.13		2,49		11 08 40	
Κάλμά 1Κ1 12 Κάλπαμμά 29 Κάιπαμμύ 73π Κάμαμα 10 1 67.8 Κάπαμά Νυ 2 5	10.65 11.28 10.96 14.75 12,60	17	T .06 .05	:	:	. 24	• 02 T	0	.09 .65	1.03	.22	.09 4.17 3.84	1.20	:	.05	.30 1.05 .65 3.85	.10 T	.30 .58 .16 .50	.46 .56 .29	.09	.01	.53			2.12	2.24	.15 .35 .51	•	1.30	.24	25	
				1																												

Continued																															HAWA1		1968
Charles	7														Day	of M	lonth																
Station	Į,	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192,2 KAMUELA ALRPURT KAPAPALA PANCH 36 KAPAMU LANOING 935 KAUMANA 88,1	13. 12. 15. 18. 47.	98 26	.27 .20	.04	.56 .40	.56 .15	7 2,65	7 .98 •	+08 + 2+08	12 7 1,30 2,45	.10	1.38 .10	2.70 2.10 2.24 .76	.42 .26	7 .33	T 0	,02 T ,59	.76 .69 .10	.08 .14 1.33 2.56		.84 .30 .50 6.22 5.33		5.08 4.28 .12	.05 0.55		1,42	1.45	7.15	.02 .16		.21 .04 1.60	.14 .14	
KAWAINUI LOWER 193 A KEAAU 92 KEALAKKUA 26.2 KEMENA 181,2 A KEMENA PESERVOIR 176,1 A	31. 10. 24.	97 51 40	.35 .10	.07	* *52 *	.60	13.40 .06	.05	1:15	2.05	.02 .65		4.18 2.33	8.20 .01 .77	:	*54 T	.98 .33	2,98	4.00 .88 .18	.03 .67	8.60 .13 .02 .02	.06 •	* ************************************	.89 4,36		5.73 T	3.74	4.42 1.57 .25 .35	1.38	2.70 .72 . 2	1.67 T	.57 .43	
KIDLAKAA A F 6 A KIPA 89,2 A KOMALA 179A KOMALA MAULILI 176 KOMALA MISSION 175,1		25 23 82 1	.32 .84 .53	• • [8 • 24 • 12	1.82 .22 .79	.20	* 11 .05 .12	7 * 0	:	1.93 1.59 1.50	.01 .04 .07	.35	.81 1.46 1.79 1.93	.08 .32	:	:	1.56 .47 .59	4.70 .03 .07	3.11 .07 .13	.42	2.09 1.62 1.15 1.96	03 0 0 2.81	* 7 * 4.55	0 1.71 8.07 9.20		6.55 .01 .01	5.15 .10	4,15 ,15 ,58 ,32	1.74	2.34	4.50 .72 .97	.62 .04 .06	
KOIAME LOWEP 196 A KONA AIRPORT 68,3 KUKAIAU 222 KUKUIMAELE MIC 199 KUKUIMAELE MILL 206 A	5, 16. 12.	30	.05 .80 .24	.24		1.06 1.05 .36	112 140 30	* *55	.01	1.06 .44 .54 1.56	T	1.02	1.75 1.05 .85	4.71 .67 .66	Ť	.42	.06	.97 .08 .34	.05 .32 .22	,60	5.42 2.09 2.25 1.49	.23	.25 .60	1.18	.27 .10	.84 .05	.22 .79 .07	3.45 T .70 .02	02 +42	.25	* 7 2.97 .92 .85	.05 .15 .04	:
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIMAU 68 C MANUKA 2	14.	81	,23 • ,21 ,38	.01 :12	.19	. 32 e . 05	,20 2,00	.02 •	1.10	.60	.08 1.26	.08		.85 1.88	•10	:13	.48 .17 .10 .49	1.10	.96 .32 .69 2.18	.70 .11	.46 .47 2.96	.15	.59	.52 .05 .06		3.21 2.14 0	.40	1.83 .08 8.00 1.48	.83 .65	2.00	.08	.09	:
MAUNA KEA BEACH MAUNA LOA SLOPE 085 H100LE HULUALOA 68,1 H10DLE PEN 147,1 H0AULA 18	9.	03	.44	, 02 •	T .	.13	, 29 •	:	.10	1.15	.27 .03 1.17 2.20	,38	1.31	2.00	.02	• 01	.13	.36 1.68	.18 .08 .09 .29	*	1.06 + 06	.29	.41	4.30	.06	12 16	1 +40	:04 :22 •	:20 1:10 *	.04 .90	.09 .24	7.80	•
MOUNTAIN VIEW 91 NAALEMU 14 NAPOUPOU 28 NAULU FORE57 30,6 NIULII 179	9.	16 1 56	.12	.02 .02	•	1.08 .07 .10	.02 .01 .15	.01	1:59	2.82 .55 .81 .0 2.30	.12	:	.39 1.30	.02 .15	:	* 83	1,53 ,33 4,93 2,90 ,38	2.35 .28 .46 .07	1.54 .28 .78 .07	. 23	1.99	*02 *	• • •	.30 .39 1.06 .74 7.64	.96	5,45 2,52 4,33		1.93	.39	2.31	.03	T +	:
ODKALA 223 OPIMIMALE 2 24.1 OPCHID LAND EST 91.5 A PAAUNAU 217 PAAULLU 221		10		.01	1.28 • 1.17 1.70	,58	.11 .01 3,89 .12	•01	.30 1.00 .05	1.20	1,02 1,02 104	.68	3.05	.01		•04	.18 .02 .12 .03	1.50 .03 .25 .71	.74 .17 •	2.27	6.71	.06	.17 .05 .57	f • •01	.08		.51	7.45	.15 .06	.05 .05	2:15 :26 1:50 2:94	.01	•
ΡΔΗΔ <u>Ι</u> Δ 21 ΡΔΗΟΔ 65 ΡΑΚΔΟ 37 ΡΔΡΔΙΚΟΟ 164,1 ΡΔΡΔΙΚΟΟ ΜΑΟΚΔ 160,1	27. 14. 33.	03	.10	•	1.71 .58 2.04	,37	.21 • .03	.01	1.69	1.20 1.33 1.60	.72 .06 .03	1.83	1,22	*02 * 7 *01	* T	.20 .68		3,25	3.18	.92 .89 .04	3,41 2,60	.10 •	* T	1,60	,21 ,87	5,02	1.71 2.84 3.53 3.35	1,43	1.18	1.01	1.29	.73	
PEPEEKED MAKA1 144 PIIHONUA 89 A POHAKULDA 107 A PUAKU 95.1 PUU KIHE 120 A	2.	.	.51	.01	-	.28	,22		1,35	.72 .10	:09 :35	-	:72 1:22	:01	.57	*08	1:05	2.76	.05	.56 +	:47 - :01	* 45	.02	:	,22	.01	.01	.11	.06	1.40 - .07	.09	-	•
PUU LAAU 102,1 A PUU LEHUA 73 A PUU MALI 113 A PUUURUMAU 167 A PUU 00 82	8.	37 1	.30 .25	.22 .09	.71 .67		,04	.05	* * * * * * * * * * * * * * * * * * * *	.21 .27	.23		* * 2.17	:	.01	•	.47	.08 .75	* * *12	.17	* 73 1:20	.05	:	5,26	.02	.17 2,05		.33 1,20	* * * *	1.20	.61 .98		
PUU WAAWAA 94.1 SAODLE ROAD 1 84 A SOUTH POINT CORRAL 3 A UMIKOA 118 UPOLU POINT USCG 159.2	30 5 15	75 41 66	.46 .05	.16 .10		3,50	4,70 13	.03	.73	.33	.70	,45	.77 2.65 1.04 1.45 2.03	:	1.58 .07	:	.07	.46		:	.05 8.90 .41 1.05		1.46	,58 * .83	• • •02	2.15	1.98	.01	.08	.74	.24 • • .48 .05		
WATAKEA SCD 88.2	43.	74	, 73		2.02	, 58			2,31	2.10	Ť	.05	. 24	, 2 à		.20	1.56	3,15	1.50	. 15	3,08	.68		3.38	.91	5,48	3.54	2.15	1.61	3,26	4,40	.40	

# SUPPLEMENTAL DATA

		(	Win		)		Relati		idity ave	rages -		Numb	per of de	ys with	precipi	itation			1
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI	OIAN TI 2 PM	ME 8 PM	Trace	6010	.1049	.5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average aky cover sunrise to su
HILO: HAWAII: WB AIRPORT	33	0.7	6.7	23	E	25	90	82	79	89	3	4	9	3	3	7	29	27	8.0
HONOLULU. OAHU. WB AIRPORT	4	5.7	9.8	34	NW	09	77	73	59	70	11	9	4	0	0	1	25	40	6.7
KAHULUI: MAUI: WB AIRPORT	5	7.2	11.6	33	N	09	92	81	67	82	2	13	4	1	0	0	20	48	7.4
LIHUE . KAUAI . WB AIRPORT	4	7.5	10.9	25	N	09	92	87	78	87	10	15	2	1	0	0	28	57	7.0

		-	-			_	_									Day	of Mo	nth				-									PRIL	1968 B
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	-			18	19	20	21	22	23	24	25	26	27	28	29	30 31	Average
ISLAND OF KAUAI	3																															
KANALOHULUHULU 1075	MAX MIN	70 44	65 52	65 53	68 51	71 54	72 42	72 46	72 52	56 49	60	66 46	66	66 54	69 49	70 52	71 50	67 51	72 49	70 50	71 57	71 49	71 50	71 58	68 58	63 58	68 56	68 50	65 56	69 50	70 55	68.1 51.1
KILAUEA POINT 1133	MAX	80	75 69	77 68	7 R 6 B	81 68	8 1 7 1	82	8 O 6 3	70 60	79 66	82 66	77 67	78 71	78 68	78 71	8 2 6 7	80 70	8 2 7 0	78 68	75 67	82 69	81 68	78 70	8 5 7 0	76 69	79 71	79 69	79 70	79 68	79 69	79.0 68.3
LIHUE AS AIRPORT	MAX	78 68	77 68	77 69	77 68	77 63	78	80 67	79 68	70 62	76 62	77 58	8 1 6 1	79 61	78 63	7 <b>7</b> 70	79 65	80 64	79 70	79 70	81 66	80 63	80 68	80 71	76 72	76 72	78 69	78 72	<b>7</b> 9	79 70	79 69	78.1 66.7
MAKAHUENA PUINT	MAX MIN	80 65	80 68	8 n 7 n	80 69	80 69	80	82 66	81 67	82 66	77 64	82 66	84 68	86 69	84 69	83 69	8 1 70	84 69	83 71	84 70	83 72	8.5 6.8	8.6 6.8	8 B 7 2	83 69	83 70	81 69	8 n 7 z	82 72	82 73	81 69	82.2 68.8
MANA 1026	MAX	85	85	85 59	84	85 64	85	85	85	87 63	74 60	79 62	84	85 64	84	8.5 6.5	84 68	87 67	8.6 6.5	86 67	86 66	86 66	87 65	85 66	87 68	84 68	79 66	82	85 65	88 64	8 R 6 4	84.4
NIU PINGE 1035	MAX	80	8 l 5 8	8 n 5 8	8 O 5 9	80	80	79 59	80	80	75 57	76 60	78 60	79 60	79 61	81 61	81 64	84 64	85 63	84 64	83 64	8 2 6 3	8 2 6 2	79 63	80 65	80 65	76 63	76 60	78 62	79 60	80 63	79.9
WATAHI LOWER 1054	MAX	76 58	77 59	77	77 60	78 63	78 65	8 1 5 5	8 0 6 1	80	77 59	79 57	80	79 59	79 59	75	81	80 61	80 65	80 64	8 O 5 8	8 n 6 7	80 63	79 67	78 70	73 68	76 66	76 65	78 65	77 64	77 64	78.3
ISLAND OF DAHU																1																
EWA PLANTATION 741	MAX MIN	82	83 62	81	82	84	86	86 66	85	76 65	80 61	81	82	8 2 6 5	84	81	81	83	8 5 6 7	83 69	84	84	84 66	84 67	81 70	81	80 69	83 67	8 4 7 0	83 68	84	82.6
HONOLULU W84P 703	MAX MIN	84	82	83	83	84	86	87	84	78	82	82	82	82 66	85 68	82	83	83	85	83	85 71	83	84	85 71	86	83	83 73	85 73	8 5 7 3	85 73	85 72	83.6
HONOLULU SUBSTA 704	MAX	78 69	77	78	77	80	83	82 73	81 73	73	78 64	78 69	80 71	80 71	81 72	80	79 68	80	81	80 73	8 t 7 3	81 71	8.3	80 71	80 73	78 73	79 73	81 75	80 74	80 73	60 72	79.6 71.0
KAHUKU 912	MIN	79	80	79	78 68	78 69	717	13	82	81	73	79		, ,	, 2	81	80	81	82	80	,,	1	82	82 70	81 73	80 73	79 71	,,	, ,	81 70	80 70	79.9
KANEOHE MAUKA 781	MIN	79	69 80 66	72	78 68	78 68	72	8 O 6 5	8 n 6 9	80	77	77 61	8 O 6 7	80 68	82 67	80	78 68	80	82	80	79 70	84	81 69	83	80 71	77 72	77 71	77	80 70	80 71	80 68	79.1 67.7
LUALUALE! BO4	MIN	83	83	83	81	83	81	8 5	81	84	75	80	80	82	84	83	8 2	85	83	85 69	82 70	82	84	84	84	80 73	80 74	8n 74	84 75	65 72	83 71	82.4
HAKAPUU POINT 724	MIN	77	82	75	70 76	71	77	65 78	63 79	77	70	77	79	81	82	78	76	79	81	81	77	83	82	79	79	79	76	77	80	79	78	78.5
OPAEULA 870	MIN	78	68 78	69 76	69 72	70 76	70 84	70	71 80	83	61	67 72	70 81	83	73 80	70 81	70	67 77	70 81	80	71 82	71	70 79	72 82	72	70	71	72	71 78	72 78	71 77	78.5
PRI WAHIAWA 820,2	MIN	81	81	82	63 80	63	81	84	64 85	85	70	59 74	82	69 78	61 84	84	65 82	62 81	80	62 83	65 82	84	63 85	63	82	79	66 79	68 78	67 82	84	82	63,5
WAIALUA 847	MIN	84	81	62 77	63 73	63 79	80	81	82	82	58 71	60 76	81	63 78	83	80	82	82	82	67 79	67 77	82	63 82	65 82	83	67	80	81	81	65	82	63.2
w4IK1K1 717.2	MIN	82	59 86	59 84	63	65 85	63 87	62 90	60 89	88	89	83	83	61 86	66 87	65 86	85	64 85	85	67 87	6 2 8 9	86	65 84	85	66 86	68 85	69	70 81	64 86	65	64	64.1
	MIN	67	64	68	69	68	63	69	70	65	63	65	70	69	65	70	72	66	67	70	71	68	69	67	74	72	71	73	73	71	69	68,6
ISLANO OF MOLOKAI																																
MOLOKAI AP 524	MAX	77	79	75	77	75	78	77	80	81	72	75	77	77	80	78	79	79	80	80	79	79	80	80	81	80	78	76	80	78	78	78.2
	MIN	70	67	69	68	68	64	64	69	68	61	64	69	66	66	69	69	69	70	71	69	69	67	67	71		71	71	71	70	70	68.2
ISLANO OF LANAI																																
LANAI CITY 672	MAX	72	72	71	70	70			70	72	75	73	74	75	7.4	76	75	74	74	75	78	78	77	75	74	77	77	74	74	75	74	74.2
	MIN		62			64			63	61	56	59	62	63	65	65	65	63	65	65	65	63		64	65		64				64	63.4
ISLAND OF MAUI																																
HALEAKALA RS 338	MAX	4.3	4./	4.1	4.0														_													
HALEAKALA SUMMIT 338.4	MIN	62 40 52	64 39 55	61 42	60 43	38	61 38	46	49	41	35	53 35	40	37	58 40	59 48	49	56	58 48	. 43	62 47	42	40	42	49		63 47	49	57	44	61 43	59.7
HANA AIRPORT	MIN	37	37	37	39	38	37	37	37	35	32	30	51 34	1	67 34	52 40	39	50 38	49	52 39	41	52 36	58 42	55 41	48	42	51 42	41		43	-	38.3
	MAX	79 66	79 66	78	79 68	64	74	70	82 68	83 66	75 57	78 61	64	63	82 65	72	78 68	80 69	70	73	80 73	65	63	83 71	82 72		79 72	69	73	82 72	72	80.7
KAHULUI W8 AP	MAX	80	65	68	79 68	63	60	63	68	76 57	60	66	82 67	63	62	84 68	81 67	85 67	86 69	70	84 68	8.5 6.6	83 62	86 65	83 69	83 70	60 66	63 68	62 69	84 69	62 69	65.9
KAILUA 446	MAX	62	62	62	77 62	61	62	78 61	78 65	78 63	71 55	77 55	79 62	63	81 63	63	75 66	75 64	79 64	79 64	79 64	80 64	80 64	81 62	81 63	81 63	61 63	8 o 6 3	77 68	78 66	77 65	78.3 62.8
KULA SANATORIUM 267	MAX	71 52	53	72 55	74 54	72 54	55	70 57	72 57	68 58	65 52	65 53	72 57	76 58	71 56	69 57	70 60	68 59	69 58	69 59	72 60	72 59	74 58	71 57	71 58	70 57	71 58	69 60	71 57	68 57	71 56	70.3
LAHAINA 361	MIN	63	83 61	84 65	63	8.5 6.5	88 64	87 68	85 67	83 67	80 61	77 68	81 69	82 66	86 67	8 2 6 8	8 4 7 1	81 69	81 67	84 70	82 70	8 2 70	83 67	84 68	84 71	85 69	84 69	81 70	83 68	84 69	84 67	83.3 67.2
WAILUKU 392	MAX	79 66	81 69	81 69	80 70	60 68	82 67	83 70	83 69	63 65	74 60	78 61	81 70		84 68	83 70	79 71	<b>6</b> 0 <b>6</b> 8	82 70	83 72	83 71	82 68	83 65	84 69	83 71		80 71	77 72		78 71		81.1
											See	Refere	nce N	otes Fol	llowin	Station	n Inda	×														
														- 50																		

Continued										DA	XIL.	Y	TE	M	E	RA	TU	RE	S												MAII APRIL		1968
Station																Day	oí Mo	nth															Average
	1	1	2	3	4	S	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
* * *																																	
ISLANO OF HAWALL																																	
HAINA 214	MAX MIN	74 61	78 62	78 66	77 63	79 62	8 O 6 1	81 63	8 1 6 3	81 62	77 58	71 60	74 62	82 64	8 2 6 3	8 1 6 6	75 65	75 65	79 65	8 0 6 3	81	80	83	83	8 o 6 7	77 65	79 66	74 67	77 65	78 64	80 64		78,6 63.7
HAWAII VOLENS NP HQ 54	MAX MIN	66 49	69 47	70 55	68 51	69	73 52	70 55	6 B 5 5	70 53	64	66 42	61 51	67 49	71 54	72 57	64 58	66 56	64 56	70 54	72 52	72 48	74 52	71 55	67 57	62 56	61	61	61	64	61 52		67.1 52.7
HILO W8 AIRPORT	MAX MIN	80 62	8 1 6 3	80 71	81 67	8 4 6 3	84	82 66	8 2 6 7	8 O 6 4	80 65	79 65	82 65	8 2 6 6	8 2 6 5	75 69	75 70	8 O 7 O	82 70	83 67	86 69	83	83	81	81	83	74 69	8 O 6 8	75 68	79	81		80.7
KAINALIU 738	MAX MIN	78 60	79 60	8 1 6 0	8 0 6 2	79 61	78 61	79 63	8 2 6 3	77 62	73 57	68	79 60	79 63	79 62	79 64	78 65	75 63	75 63	80 63	80 66	81	79 62	79 62	80	78 65	76 65	74	75	78 65	74 65		77.7
KAMUELA 192.2	MAX MIN	69 55	72 55	72 56	71 56	70 55	78 51	76 54	72 58	74 57	68 50	66 54	66 49	76 50	75 53	74 59	68 58	75 58	75 57	77 54	77 57	76 49	77	77 53	72 55	70 56	72 56	71 58	70 59	70	70 58	1	72,5
KAMUELA AIRPORT	MAX MIN	70 54	72 55	71 53	71 56	72 51	72 54	73 51	73 50	74 51	68 50	69 45	68 45	74 45	75 46		73 54	72 47	72 41		74 53	72 52	74 52	73 51	74 52	73 52	71	71	72 56	72 58	72 57		72.0
KEAAU 92	MAX MIN	79 62	8 1 6 2	8 1 6 3	80 65	81 63	83 63	83 63	83 63	8 2 6 3	87 61	8 2 6 3	8 B 6 2	8 8 6 2	8 8 6 2	8 8 6 2	74 65	75 67	81	83 67	88	8 B 6 2	8 B 6 2	8 5 6 3	79 66	81 74	79	77	77	77	79 65		82.2
KEALAKEKUA 26.2	MAX MIN	8 1 6 2	80 61	80 62	80 63	80 63	8 N 6 2	81 64	81 64	8 O 6 3	75 56	69 59	71 62	79 64	80 63	79 64	79 63	75 63	77 62	78 63	80 66	79 61	79 63	80 62	8 O 6 Z	80 66	78 65	74 66	77 65	79 65	75 66		78.2 63.0
KOHALA MISSION 175.1	MAX MIN	74 65	77 66	77 66	75 67	77 63	79 64	79 64	79 67	79 65	78 61	74 61	79 62	8 2 6 3	8 1 6 5	80 67	77 68	75 67	80	77 66	81 67	80 65	8 2 6 5	81 66	8 n 6 9	76 68	78 68	74 67	76 67	77 66	78 66		78.1 65.6
KONA AIRPORT 68.3	MAX MIN	8 0 6 2	82 62	8 2 6 4	84 66	8 4 6 4	8 1 6 3	81 63	8 2 6 5	83 68	78 61	76 64	8 1 6 7	84 65	83 66	82 70	84 71	8 4 6 8	84 70	84 70	84 71	81	83 68	86 68	8 4 7 0	8 2 7 2	84	80 70	8 2 6 9	81 69	83 69		82.3
KULANI CAMP 79	MAX MIN	60 39	63 41	65 42	64 47	64 44	75 45	65 46	68 46	65 46	64	53 46	68 43	65 45	58 53	62 53	64 54	62 53	63 51	64 53	68 49	71 45	67 45	65 49	63 52	63 52	61 52	56 51	60 51	59 53	90 48		64.5
MAUNA KEA SEACH	MAX MIN	86 66	88 67	92 69	91 68	90 67	86 68	84 69	8 B 70	86 68	83 62	75 64	8 8 6 5	83 65	8 8 6 8	8 5 7 2	8 2 7 1	83 70	83 69	87 68	84 71	8 3 6 5	89 68	89 70	8 5 6 8	85 71	85 72	8 1 7 5	82 72	85 72	85 71		85.4 68.7
MAUNA LOA SLOPE 085	MAX MIN	46 31	47 29	52 32	51 32	4 B 3 1	4 8 3 2	48 32	47 33	49 30	42 28	55 35	57 38	50 34	56 34	5 O 3 8	45 36	49 37	49 35	48 32	47 34	50 34	50 31	50 32	48 36	50 36	46 35	4 B 3 7	47 36	50 37	51 36		49.1 33.8
MOUNTAIN VIEW 91	MAX MIN	70 56	75 54	76 55	72 60	75 56	80 56	77 59	75 60	77 57	73 55	75 55	77 57	83 57	83 57	75 63	70 63	72 62	75 62	76 60	83 56	83 56	8 2 5 7	8 1 5 7	76 61	71 61	75 62	67 62	69 61	70 62	71 59		75.5 58.6
NAALEHU 14	MAX MIN	80 61	79 63	81 64	8 1 6 4	82 66	8 2 6 6	81 66	81 66	80 66	81 59	77 66	77 66	77 66	8 1 6 3	8 1 6 3	77 68	77 66	75 64	8 1 6 6	81 66	82 63	82 63	8 2 6 5	80 67	74 67	75 67	75 67	78 66	78 66	77 66		79.2 65.1
DOKALA 223	MAX MIN	74 64	79 63	78 66	72 67	79 65	8 2 6 5	8 5 6 8	8 2 6 5	8 1 6 5	75 62	74 64	8 4 6 5	82 67	93 71	8 2 6 6	77 66	75 66	8 1 6 8	80 67	82 67	8 1 7 2	8 2 6 6	8 2 6 6	8 1 6 8	78 67	78 66	<b>73</b>	79 66	76 66	80 66		79.2 66.2
OP1M1MALE 2 24.1	MAX MIN	78 56	79 57	75 59	76 60	77 58	81 59	83 61	84 60	8 2 5 6	69 61	78 55	8 2 5 8	78 59	8 n 6 1	79 62	76 62	75 60	73 60	78 60	78 57	80 58	81 59	80 61	77 64	87 64	76 65	74 64	78 63	76 65	77 61		78.2 60,2
PAHALA 21	MAX MIN	79 61	80 61	79 61	80 61	8 2 6 2	8 2 6 4	81 66	81 63	79 65	80 59	8 2 5 9	8 0 6 2	8 1 6 0	83 62	80 66	78 66	76 65	74 62	79 64	8 2 6 5	8 O 6 3	81 64	81 64	79 65	73 66	76 67	74 67	76 64	77 66	75 62		79.0 63.6
UPOLU PT USCG 159.2	MAX MIN	79 68	80 68	82 68	81 70	80 68	82 66	82 64	82 62	83 67	82 63	74 62	77 68	83 62	82 68	82 70	83 70	83 69	83 70	81 71	81 71	81 69	83 68	83 69	83 71	83 70	83 70	82 <b>7</b> 0	81 68	81 71	82 69		81.5 68.0

### **EVAPORATION AND WIND**

St. 17																Day	Of M	lonth															ਕ . ਲ
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * 1\$LAND OF KAUA1																																	
LIHUE WS AIRPORT	EVAP W1NO MAX MIN		153	192		178	113	69 88	104	123 87	156	92 82	62 83	8 8	55 P5	74 84	.15 98 80 67	63 88	112 88	102	8 8 8 8	77 91	70 86	147	199 87	218	202 76	176	192	194	.25 204 84		7.61 3957 84.6
* * * ISLAND OF DAHU																																	
HONDLULU ORSERV 702.2	EVAP W1NO MAX M1N		36 92	91	91	36 90	93	.24 20 97 67	94	39 94	62 84	49 89	36 95	16 91	18 98	21 87	.12 19 83 71	90	16 89	29 92	15 92	98	19	17	3 8 9 2	4 9 R 8	53 84	36 A 2	43 90	51 93	.25 48 90 69		6.37 985 91.2 68.2
* * * ISLANO OF HAWAII																																	
HILO W8 Alpport	EVAP W1NO MAX M1N		127	163 84		56 90	50 84	65 89	90	112	77 76	38	70	73	60 88	26 74	50 75 69	22 84	45	35 93	85 91	в 8	58 92	79	77 79	83	13 72 66	32 78	13 76	25 82			4,85 1829 83.6 65.7

# STATION INDEX

NO.	GE 1	UDE	NOIT	BSERVA TIME A	LND			NO.		IGE 1	UDE	TUDE	NOLL	T		ATIC AND LES		
STATION X HOISTOICT	DRAINAGE	LONGITUDE	ELEVATION TEMP.	PRECIP.	Н.	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	PRECIP.	EVAP.	SPECIAL are north	OBSERVER
LANC OF RAVAI  ALERACER RESY, 983 014-0 02 XOLOA ANANCA 111 918 4 014-5 01 KARAIMAU BRYOCYSOOO 37A 985 4 024-0 02 XOLOA EAST LAWAI 910 91 094-0 02 XOLOA ELEELE 927 4 07-0 02 XAVAIMAU HALAULA 110 4 093-0 01 XOLOA HALAULA 110 4 093-0 01 XAVAIMAU HALAULA 110 4 093-0 01 XAVAIMAU HALAULA 110 4 093-0 01 XAVAIMAU HALAULA 110 4 093-0 01 XAVAIMAU HALAULA 110 4 093-0 01 XAVAIMAU HALAULA 110 4 093-0 01 XAVAIMAU HALAULA 110 4 01 XAVAIMAU HALAULA 110 1 01 XAVAIMAU HALAULA 110 1 01 XAVAIMAU	2 21 57 1 27 05 2 21 56 2 21 55 2 22 06 2 21 54 1 22 07 2 21 58 1 22 05	159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28	1610 116 720 440 350 163 253 490 1216	7A 7A 7A 6A 7A 8A	c	MC BRYDE SUGAR CO- LIMSE PLANTATION CO MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIMSE PLANTATION MC BRYDE SUG CO LTO LIMSE PLANTATION MC BRYDE SUG CO LTO LIMSE PLIN CO LTO GROVE FARM CO LTO SIMSE PLIN CO LTO EXPANS SUGAR CO LTO	LANAI CITY 672 LANAIMALE 684 MAHANA 694 MALAUEA 676 WAIAKEAKUA 685	3461 0 5286 0 5301 0 5704 0 6012 0 9021 0	1 LAHA1NA	1 1 1 1 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	157 00 157 00 156 55 156 53 156 55 156 55 156 55	1640 30 1620 3370 1430 1735 2040	74	W1 8A 7A, W1 MO W1 WM	A A A		DOLE COMPANY OULE COMPANY
NULL   NULL	2 22 02 1 22 05 1 22 11 3 22 06 1 22 06 1 22 06 1 22 06 1 22 06 1 22 11	159 28 159 34 159 26 159 40 159 22 159 20 159 19	1070 695 407 360 87 800 175 9 9 317 415	7A W1 7A	9 4 46	LINUE PLIN CO LTO  MC BRYDE SUG CO LTO FILAUEA SUG PLIN CO FILAUEA SUG PLIN CO FILAUEA SUG PLIN CO LINUE PLANTATION LINUE PLIN CO LTO FILAUEA SUG PLIN CO FILAUEA SUG PLIN CO FILAUEA SUG PLIN CO FILAUEA SUG PLIN CO	AUWAH1-252 FIELO 46 474 HAELAAU 477 HAELAAU 477 HAELAKALA B E S 434 HALEAKALA BRANCH 432 HALEAKALA BRANCH 432 HALEAKALA SUMMIT 338.4 HALEAKALA SUMMIT 338.4 HALEAKALA SUMMIT 338.4 HALIHATLE 423 HALIHATLE 423 HANA 336	0790 0 0995 0 0999 0 1004 0 1008 0 1016 0	4 LAMAINA 4 LAMAINA 1 MAKAWAO 1 MAKAWAO 2 MAKAWAO 2 MAKAWAO 2 MAKAWAO 1 MAKAWAO 1 MAKAWAO	1 1 2 2 1 1 1 1	20 37 20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 55 20 55 20 55	156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8A 8A	7A 6A 8A 8A 5A 5A	60	S	ULUPALAKUA RANCH MAUJ PINEAPPLE CO, MAUJ PINEAPPLE COMPANY U OF HAWAII EXP SIA HALEARALA RANCH CO HALEARALA NAT PARK U OF MICH MI HALA OBSY PHIL SCOIT MAUJ PINEAPPLE CO, HARRY HASEGAWA
KILAUEA POINT 1133	1 22 14 3 22 02 3 22 04 2 21 55 2 21 56 1 22 T1 2 21 59 2 21 59 2 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23	180 82 2154 36 240 640 737 104 375 207 103 MI	7A 8A 7A 7A 6A 7A 7A	ear J	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO LTD GROVE FARH CO LTD GROVE FARH CO LTD KILAUEA SUG PLIN CO HC BRYDE SUG CO LTD HAWAIIAN SUGAR PL ASSN LIME PLIN CO LTD U S WEATMER BUREAU U S WEATMER BUREAU	HANA AIRPORT HANAHUI 281 HOLUA CABIN 259,5 HONDORAU 480 HONDKOHUA 493 HONDLA FLO 49 494 HONDHANU GULCH 341 IAO MEEDLE 387,2 KAMARULOA HAURA 482,3	1125 0 1748 0 1552 0 1882 0 1887 0 1914 0 1935 0 2208 0 2453 0	1 HANA	1 1 2 4 4 4 1 3 4	20 49 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 59	156 01 156 01 156 13 156 36 156 39 156 38 156 33 156 33	61 325 6930 870 135 125 6280 7100 650	114	11A 7A M0 6A M0	cc	5	MANKT MASCUAWA HAWAIIAN AIRLINES KOALI RANCH HALEAKALA NATL PARK RGS HAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO HALEAKALA RANCH CO STATE DIVISION OF PARKS EOWARD CHANG
MALAUCHA POINT   5789 07 SULUDA MARAUCHA POINT   5780 07 ALMEA MARAUCHA POINT   5780 07 ALMEA   5780 07 ALME	2 21 52 3 21 55 3 22 02 2 21 55 3 22 07 1 22 11 2 22 04 3 22 04 2 22 04	159 38 159 46 159 28 159 36 159 20 159 30	52 8- 140 11 9 300 350- 330 5075 1250 6- 1110 650	7A 9A M1D 7A	4	U S COAST GUARD OLOXELE SUGAR CO KEKAMA SUGAR CO LTD GROVE FARM COMPANY U S GEO SURVEY LIMUE PLANTATION CO. U, S. GEO, SURVEY KEKAMA SUGAR CO LTD LIMUE PLIN CO LTD LIMUE PLIN CO LTD		2572 0 2630 0 2679 0 3433 0 3576 0 3910 0 4091 0 4193 0	3 WALLUKU 1 MAKAWAO 1 MAKAWAO 4 LAHAINA 2 HANA 3 MAKAWAO 1 HANA 2 MAKAWAO 3 WALLUKU	3 1 4 2 3 1 2 3	20 54 20 51 20 54 20 53 20 39 20 52 20 50 20 42 20 47	156 26 156 16 156 13 156 38 156 08 156 23 156 10 156 27 156 27		7A	HID Mo 7A W1 5A HG 8A 7A	0		U S WEATHER BUREAU E MAUI IRR CO LTD E MAUI IRR CO LTD PIONEER HILL CO LTD KAUPO RANCH HAWAIIAN COM + SUG CO E MAUI IRR CO LTD A. L. CORELL HAWAIIAN COM + SUG CO KIPAHULU CATTLE COMPANY
PH ASIRIMA 1115 8155 01 MANACE1 PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 1 200 01 ASAMCE PURIL SIDGE 1040 01 AS	1 22 12 1 22 13 3 22 01 2 71 58 2 21 57 2 22 54 2 21 54 2 22 01 2 22 01	159 29 159 42 159 24 159 27 159 27 159 34 159 31 159 27 159 28	101 295 166 329 420 740 215 2100 565 780	5A 7A 7A 8A 8A 7A MO 6A 8A	K-B M-O	MC BRYOE SUG CO LTD PRINCEVILLE RANCH KERAMA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD LIMUE PLANTATION CO. MC BRYOE SUG CO LTD MC BRYOE SUG CO LTD LIMUE PLIN CO LTD LIMUE PLIN CO LTD	KUSJI 390 KULA HEIGHTS 323.2 KULA SANATORIUM 267 LHHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 MHAINAHINA 466 AMOKJPEA 475 NAKALELE -FLO 60-497 A	4887 0 5003 0 5006 0 5177 0 5404 0 5408 0 5665 0 5715 0 6521 0	LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	20 54 20 47 20 42 20 53 20 51 20 51 20 53 20 57 20 59 21 02	156 35 156 19 156 22 156 41 156 37 156 39 156 15 156 40 156 37	5788 2520 3004 45 1280 220 1240 715 129	7A 7A	6A 7A 7A VAR 7A MOI 7A	c	S	MAUL PINEAPPLE CO KENNETH WILLEY KULA SANATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO E HAUL IRR CO LTO PIONEER MILL CO LTO MAUL PINEAPPLE CO MAUL PINEAPPLE CO
#AJAA 9-3 9259 03 #AJMCA  #AJUA KA1 1055 A 967 02 LIMUE  #AJHA 497 92,29 03 WAJMCA  #LST LAMAI 931 A 9959 02 KOLOA   ISLANO 07 OAHU   AJEA FIELD 625 761 A 0111 03 EAA  #AJEA FIELD 625 761 A 0	3 21 59 2 22 02 21 57 2 21 54 3 21 25 2 21 19 1 21 25 1 21 39	159 21 159 41 159 31 157 57 157 51 158 04	10 50 20 210 455 20 680	8A 8A 6A 7A 9A	¥.	REKAMA SUGAR CO LTD LIMUE PLANTATION MAIMEA SUG MILL CO MC BRYDE SUG CO LTO WAIAHOLE WIR CO LTD BOARD OF WIR SUPPLY OEL MONTE CORPORATION PLEMADO CORBUS	OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 PARKEA 350 PAIA 406 PANILEIHULU 259.2 PAUWELA 490 POHAKEA BRIOGE 307.2 POLIPOLI SPRINGS 267.24	7040 0 7059 0 7066 0 7194 0 7566 0 7674 0 7857 0 8060 0	1 MAKAWAO 4 LAMAINA 1 LAMAINA 1 HANA 1 WAILUKU 2 MAKAWAU 3 WAILUKU 2 MAKAWAO	1 1 2 1 3 2	20 48 20 49 20 5T 20 49 20 55 20 41 20 55 20 49	156 17 156 38 156 36 156 07 156 23 156 08 156 19 156 31 156 20	4127 800 1260 170 3570 485 167 6150		VAR 7P MO 6A 6A W1 7A 6A VAR	c		MAUI CO WATER DEPT PIONEER MILL CO. PIONEER MILL CO. TO E HAUL IRR CO LTD E HAUL IRR CO LTD HAWAIIAN COM + SUG CD KAUPO RANCH CO. MAILUKU SUGAR CO STATE DIV OF FORESTRY E HAUL IRR CO LTD
CHURCH COLLEGE LAIE   0340   01   KOULAUPDRO COCCONT 15.400 Bad-1   00-45ETT HIGHLANDS 780-, 0-86 02   NOROLULU   14.404 5947 771-2   094-02   NOROLULU   14.404 5947 771-2   094-02   NOROLULU   14.404 5947 791-2   094-02   NOROLULU   14.404 5947 791-2   094-02   NOROLULU   14.404 5947 791-2   198-01   KAR   199-02   NOROLULU   198-04 791-2   198-01   KAR   199-02   NOROLULU   198-04 791-2   198-01   KAR   199-02   NOROLULU   198-04 791-2   198-01   KAR   199-02   NOROLULU   198-04 791-2   198-01   KAR   199-02   NOROLULU   198-04 791-2   198-01   KAR   199-02   NOROLULU   198-04 791-2   198-01   198-04 791-2   1	1 21 39 1 21 26 2 21 21 3 21 21 2 21 23 5 21 33 3 21 24 3 21 19 2 21 20 2 21 19	157 47 157 50 158 02 157 54 158 00 158 06 158 00 157 55	12 MIC	VAR	E SA	RICHARD COBURN U OF H MARINE LAB J. L. BANNING EWA PLANIATION CO BUARD OF WATER SUPPLY WAIALUA AGR CO LTD H. V. VON HOLT U S COAST + GEODETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU	PUD KUKUI HAKAI 472 PUDUNENE 396 PUD PAKI 392 SPRECKELSVILLE 400,2 TWIN GATES 261-3 KULNELE 333 UKUNEHAME 301 UKUMEHAME 301 UKUMEHAME 3064 WAMIKULI 364	8444 0 8543 0 8553 0 8688 0 8742 0 8744 0 8750 0 8760 0	LAMAINA 3 WAILUKU 1 HANA 3 WAILUKU 3 MAKAWAO 1 MAKAWAO LAHAINA 2 MAKAWAO LAHAINA 4 LAHAINA	3 3 1 4 2 4	20 55 20 53 20 46 20 54 20 46 20 48 20 48 20 39 20 54	156 38 156 27 156 03 156 25 156 23 156 15 156 35 156 24 156 40	2500 60 2160 85 1310 5230 75 1900 580		BA VAR MOI 7A BA BA	c	5	PIONEER MILL CO LTD HAWAIIAN COM + SUG CO EAST MAU I TREIGATION CO HAWAIIAN COM + SUG CO KAONGULU RANCH HALEANALA RANCH CO PIONEER MILL CO LTD ULUPALAKUA RCH CO LTD PIONEER MILL CO LTD
N S P A EMP 57A TUT	1 21 25	157 54 157 57 157 45 157 50 157 41 157 49 157 47	50 10 800 25 10 910 1380 225 74	A8 01H	1 11 11 1	H S P A EXP STATION HRS. MILLIE ZAPATA WAIAHOLE WIR CO LTD KAHUKU PLIN CO KALUA FIRE STATION BOARD OF WIR SUPPLY HAWAII NATIONAL GUARD STATE HOSPITAL KANCOME RANCH CO GEORGE H SSYLET	WAIHERU CAMP 484 WAIHER VALLEY 482 WAIKAHOI 449 WAIKAHOI ADM 336 WAIKAHOI 309 WAILUA [K1 348 WAILUAU 392 WAIOPAI RANCH 256 A ISLAND OF HAWAII	9315 0 9332 0 9335 0 9376 0 9460 0	1 MAKAWAO 3 WA1LUKU 1 HANA 3 WAILUKU	1 1 3 1 3	20 55 20 57 20 52 20 49 20 52 20 48 20 54 20 38	156 31 156 32 156 12 156 14 156 31 156 09 156 3D 156 12	320 300 1200 4320 470 2630 200 220	BA	6A 6A WM VAR 6A 8A OC	c	S	WAILUKU SUGAR CO WAILUKU SUGAR CO E MAUI (RR CD LTO MAUI COUNTY WIT OEPT WAILUKU SUGAR CO EAST MAUI TRRIGATION CO S7, ANTHONYS BOYS SCH HALEAKALA RANCH CO
EAPALAMA 773 A 326 02 HONOLULU EARALHAPA1 841 EARAL 880-2A 3740 05 WAIALUA EARAL EL INHAEE 880-2A 3740 05 WAIALUA EKMOZ CAMP 8 855 4 476 05 WAIALUA EKMOZ CAMP 8 855 4 476 05 WAIALUA ELUALUALEI 878 TUNNEL 5 555 06 WAIANAE ELUJALUALII 878 TUNNEL 5 555 06 WAIANAE	2 21 21 5 21 35 5 21 34 5 21 30 5 21 30 5 21 30 4 21 26 4 21 29 1 21 24	157 52 158 11 157 59 158 00 158 05 157 58 158 08	614 20 1180 1050 725 1160 113 7A	41		GEORGE H. SWIFT KAHEHAMEHA SCHOOLS WAIALUA AGR CO LTO WAIALUA AGR CO LTO HAWAII NATIONAL GUARD WAIALUA AGR CO LTO C + F OFFICER HEOG USN AMMUNITION OEP U S NAVY HILMOR LUM	EAST MONORANE 183.2 A HAINA 214 HAKALAU 142 HALEMAUMAU 52 HALEPIULA 117 HAWAII VOLCNS NP HO 54	0190 0 0450 0 0840 0 0905 0 1033 0 1060 0 1065 0 1303 0	5 N KONA 1 N KOHALA 1 S KOHALA 1 S KOHALA 1 HAMAKUA 2 S H1LO 3 KAU 1 HAMAKUA 2 HAMAKUA 2 KAU 1 N KOHALA	1 1 2 3 1 2 2	19 38 20 10 20 07 20 06 19 54 19 24 19 56 19 46 19 26 20 14	155 43 155 43	5220 1870 4240 461 105 3648 5770 9220 3971 600	7A BA	MO W1 MO 7A 7A HO MO MO BA 7A	c		GREENWELL RANCH KOMALA DITCH CO LTD KOMALA DITCH CO LTD HONOKAA SUGAR CO PEPEEKEO SUGAR CO. HAWAII NAT PARK KUKAIAU RANCH CO STATE OLV. OF PARKS HAWAII NAT PARK KOMALA SUGAR CO
LUMALIO MOME 724-2 5-57 0.2 MONOLULU MARANA ARI 75-00-1 1 5-60 0-4 MAIAMAE MARANA 71-70-00-1 1 5-75 0.2 MAIAMAE MARANA 712-4 1 5-751 0-4 MAIAMAE 71-70-1 1 5-75 0.2 MONOLULU MANDA 712-7 1 5-75 0.2 MONOLULU MANDA 712-7 1 5-75 0.2 MONOLULU MAIAMAE 71-70-7 1 5-75 0.2 MONOLULU MAIAMAE 71-7 1 5-75 0.2 MONOLU	4 21 28 4 21 29 2 21 19 2 21 19 2 21 20 1 21 21 2 21 21 4 21 31 2 21 21	158 13 156 12 157 39 157 48 157 46 157 54 158 09 157 49	40 25 160 538 8# 220 650 410 20	BA H1D 9A	E .	LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARD HRS.JOHN H.BEAUHONT BOARO OF WIR SUPPLY LEAP. STA. MAS.P.A. JOHN A ROXBURGH FEDERAL AVIATION AOM. BOARO OF WIR SUPPLY	HILD W8 AIRPORT RIGHT WILD ALL AND ALL	1492 0 1557 0 1562 0 1665 0 1701 0 1864 0 1960 0 2047 0 2151 0	S HILO N KONA N KONA S KONA N HILO N KOHALA S HILO N KONA N KONA N KONA	2 4 2 1 2 4 4	19 43 19 38 19 37 19 27 19 56 20 09 19 51 19 40	155 04		M10		MIDE	J	U S WEATHER BUREAU STATE DIV OF FORESTRY VARIOUS RANCH HANDS MRS HALAE W HUA PEPEREO SUGAR COMPANY KOMALA OITCH CO LTD PEPEREO SUGAR CO. STATE DIV OF FORESTRY STATE DIV OF FORESTRY HUEHUE RANCH
DPACULA 870   A   150   D   ANIALUA	2 21 21 5 21 34 2 21 20 2 21 21 3 21 25 2 21 17 5 21 28 1 21 35	157 50 158 02 157 46 157 48 157 58 157 43 158 01 157 54	410 1060 7A 995 1640 240 6 700 8A 40 360 488	VAR 7A M1D M1D	r x r	BOARD OF WIR SUPPLY WAIALUA AGR CO LID BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAMES MUMENO MRS ALFREO FRANCO. JR. PINEAPPLE RESEARCH INST KAMUKU PLIN CO MAT HEM CEMETERY	KAALA IK1 12 KAAWALOA 29 KAHIAWAI 3-6 KAIMALIU 738 KALAPANA NO 1 67-8 KAHAOA NO 2 5 KAHUELA AIRPORT KAPAPALA RANCH 36	2249 0 2327 0 2512 0 2751 0 2894 0	3 KAU - N KONA 3 KAU 4 N KONA 2 S HILO 3 KAU 1 S KOHALA 5 KOHALA 5 KAU	3 4 2 3 1 5	19 06 19 30 19 06	155 34 155 55 155 46 155 56 155 02 155 40	1340 1330 3700 1500 10 1375 2670 2665 2140	7A 6A 8A	7A BA 7A VAR WI 6A	-		MUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO., RUSSELL P. SMITH KOMA EXPERIMENT STA HAWAII VOLCANOES NAT PK HAWAIIAN RANCH CO PAREER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARD OF WATER SUPPLY
TANTALUS PLAM 780 8730 02 MONOLULU TANTALUS 700-5 8730 02 MONOLULU TANTALUS 7700-5 8730 02 MONOLULU TRINIV 07 MAWAII 713 A 8815 02 MONOLULU TANTALUS 700 4814 AM 80 80 80 80 80 AM 1AMOLE 837 80 80 80 AM 1AMOLE 837 80 80 80 AM 1AMOLE 837 80 80 AM 1AMOLE 847 AM 8750 02 MONOLULU TANTALUS 847 A 9139 02 MATAMOLE TANTALUS 848 A 9238 00 MATAMOLE TANTALUS 8	2 21 20 2 21 18 5 21 30 1 21 28 2 21 17 5 21 35 4 21 27	157 49 157 50 157 49 158 03 157 53 157 47 158 07 156 11	2000 1325 79 854 745 40 32 7A 20	7A 8A 7A 8A 7A 7A 6A	H 14 H	REV R CULLINAN BOARD OF WATER SUPPLY R. E. WHITE DEPT OF GEOSCIENCE WAIAUJA AGR CO LTO WAIAHOLE WIR CO LTO SPENCER TINNER WAIAUJA AGR CO LTO CAPITAL INVEST CO CAPITAL INVEST CO	KAUMANA 86.1 KAWAINUI LOWER 193 A KEAAU 92 KEAIWA CAMP 22.2 KEAIWA CAMP 124.2 KEANAKOLU CAMP 124.2 KEHENA RESLEVOIR 176.1A KIOLAKAA A + F 6	3510 0 3770 0 3872 0 3925 0 3977 0 4098 0 4245 0 4250 0	2 S HILO 1 HAMAKUA 2 PUNA 3 KAU 4 S KONA 2 HAMAKUA 1 N KOHALA 1 N KOHALA 3 KAU	2 3 4 2 1 1 3	19 41 20 05 19 38 19 14 19 30 19 55 20 07 20 10 19 04	155 09 155 39 155 02 155 29 155 55 155 21 155 45 155 48 155 38	1123 1080 280 1700 1450 5280 3840 2520 1925	8.A 8.A	VAR W1 8A 8A W1	r han		SHIGEO MASUYA HUNOKAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COHPANY MISS AMY GREENVELL STATE DIV. OF FORESTRY KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTD
#AIRAM 836 A 9261 03 [EMA #AIRAM 836 A 9261 03 [EMA #AIRAM 836 A 936 0] ROULUPOKO #AIRIKI 7152 939 03 03 [MONOLULU #AIRAM 836 A 936 0] MONOLULU #AIRAM 936 A 9921 01 KONLULU #AIRAM 0 794 A 9921 01 KONLULU #AIRAM 0 794 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05 #AIRAM #AIRAM 936 A 9930 05	3 21 26 1 21 30 2 21 16 2 21 16 2 27 16 1 21 21 5 21 36 3 21 23 2 21 18	157 53 157 49 157 45 157 45 157 44 158 04 158 01	800 760 10 84 170 180 60 420 59 1100	#1 #1 8A #1 8A 7A 6A M10		WAIAHOLE WIR CO LTD WANDLULU ZOO BOARD OE WIR SUPPLY WAILUPE VALLEY SCHOOL ST DIV WIR + LAND DEV WAIALUPA GAR CO LTD OAHU SUGAR CO BOARD OF WIR SUPPLY	KIPA 89.2  KOMALA 179A KOMALA MAULILI 176 KOMALA MISSION 175.1 KOIAWE LOWER 196 KONA AIRPORT 66.3 KUKAIAU 222 KUKVIMAELE MIC 199	4632 0 4670 0 4675 0 4680 0 4685 0 4764 0 4815 0 4928 0	2 S HILO  1 N KOHALA  1 N KOHALA  1 N KOHALA  1 HAMAKUA  4 N KONA  1 HAMAKUA  1 HAMAKUA  1 HAMAKUA  2 S HILO	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19 44 20 14 20 13 20 14 20 05 19 39 20 02 20 07 20 08	155 47 155 47 155 48 155 38 156 01 155 21 155 35	1490 305 960 537 720 15 840 980 300 5170	7A 8A	W1 6A 6A 6A	c		MAUNA KEA SUGAR CO, KOMALA SUGAR CO KOMALA SUGAR CO KOMALA SUGAR CO HUNOKAA SUGAR CO HAMALIAN AIRLINES HAMAKUA MILL CO HUNOKAA SUGAR CO HUNOKAA SUGAR CO HUNOKAA SUGAR CO FOOTOAL SER
**ALAUPARA 352   4990   01 MOLOKA!  **CANACI MAINA 952-6   10 0 01 MOLOKA!  **ALVINAKARA 159-5   10 10 01 MOLOKA!  **CLONECKE 7FR** 551   1 3970   01 MOLOKA!  **ECONECKE 7FR** 551   1 3970   01 MOLOKA!  **ECONECKE 7FR** 551   1 3970   01 MOLOKA!  **ALVINAKARA 150-5   1 0 01 MOLOKA!  **ALVINAKARA 150-5   1 0 01 MOLOKA!  **ALVINAKARA 150-5   1 0 01 MOLOKA!  **ALVINAKARA 150-5   1 0 01 MOLOKA!  **ECONECKE 150-5   1 0 0 01 MOLOKA!  **ECONECKE 150-5   1 0 0 01 MOLOKA!  **ECONECKE 150-5   1 0 0 01 MOLOKA!  **ECONECKE 150-5   1 0 0 0 01 MOLOKA!  **ECONECKE 150-5   1 0 0 0 0 01 MOLOKA!  **ECONECKE 150-5   1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1 21 04 1 21 06 1 21 12 1 21 09 1 21 09 1 21 08 1 21 08	157 12 157 02 156 48 157 13 157 06 156 44	30 60 12 70 560 878 20 1075 450 84	8A 6A WK. 7A 8A 9A 8 A 6A	H - W - W - W - W - W - W - W - W - W -	KALAUPAPA SETILEHENT W. J. CARSTEN MULOKAI RANCH LTD MOLOKAI SENERAL HOSPITA MOLOKAI SANCH. LTD. DEL MONTE CORPORATION H. S.P. A. LLONA AIRLINE'S PUUDMOKU RANCH MOLOKAI RANCH MOLOKAI RANCH MOLOKAI RANCH	KULANI MAUKA 76  KULANI SCHOOL SITE 78 LALAMILO ELO OFF 191-1 LANIHAU 68 C LAVA TREE PARK 66-1 HANUKA 2 HAUNA KEA BEACH HAUNA LOA SLOPE OBS MIDOLE MOLUALOA 68-1 MIDOLE PEN 147-1	5018 0 5021 0 5260 0 5330 0 5460 0 6134 0 6180 0	5 N HILO 2 S HILO 1 S KOHALA 4 N KONA 2 PUNA 3 KAU 5 KOHALA 4 N KONA 6 HAMAKUA 1 N KOHALA	2 3 1 5 4 1	19 33 19 35 19 35 20 01 19 40 19 29 19 07 20 01 19 32 19 37 20 06 19 11	155 27 155 20 155 41 155 58 154 54 155 50 155 50 155 58 155 58	5735 2615 1530 650 1760 103 11146 475 1380	8A H10	WI WI SA	E E		ST DEPT OF SOCIAL SER STATE DEPT OF L + N RES KOMA EXPERIMENT STATION STATE DIV. OF PARKS STATE DIVISION OF PARKS HAUNA KER BEACH HOTEL U.S. WEATHER BURRAU KOMA EXPERIMENT STA KAHUA RANCH HAMALIAN RANCH CO

STATION		X NO.	NOISIAIG	DISTRICT	INAGE		ATITUDE	LONGITUDE	ATTON		SERV TIME TABI	AND ES	OBSERVER	STATION	CN	NOT	DISTRICT	AGE 1	TITUDE	ONGITUDE	ATION		SSERV TIME TAB	ANI		OBSERVER
SIATION		INDEX	DIVI		DRAIN		LATI	LONG	ELEV	TEMP	PRECIP	EVAP.	OBSERVER	SIATION	INDEX	DIVISION	DISTRICT	DRAINAGE	LATI	LONG	ELEV!	TEMP.	PRECIP	EVAP.	SPECIAL AE ROTE:	OBSERVER
ISLAND OF HAWAII					T	T								ISLAND OF MAWAII												
MOUNTAIN VIEW 91 NAALEHU 14 NAPOOPOO 28 NAULU FOREST 38.6 NIULII 179 DOKALA 223 DPIHIMALE 2 24.1 ORCHID LANO EST 91.5 PAAUHAU 217	A A A	656 669 673 680 713 716 716 720	8 0 7 0 1 0 6 0 1 0 5 0	2 PUNA 3 KAU 5 KONA 2 PUNA 1 N KOHALA 2 N HILO 4 S KONA 2 PUNA 1 HAMAKUA		3 1 4 1 2 1 1 2 2 2 4 1 2 1	9 04 9 28 9 19 0 14 0 01 9 16 9 34 0 05	155 07 155 35 155 55 155 08 155 45 155 17 155 53 155 00 155 26 155 22	1530 673 395 1400 75 430 1270 445 415 800	7 A	8A 7A VAR 6A 7A		PUNA SUGAR CO HUTCHINSON SUGAR CO KONA EXPERIMENT STA HAMAII VOLCANDES NAT PK KOHALA SUGAR CO LAUPANDEMOE SUGAR CO MISS C LEONARO BOARD OF WATER SUPPLY PAAUHAU SUGAR CO HAMAKUA MILL CO	PUU LEHUA 73 A PUU HAL1 113 A PUUOKUMAU 167 A PUU 00 82 PUU HAAWAA 94+1 A SADOLE ROAD 1 84	84 85 85 85 85 85 86 86	60 0 15 0 48 0 50 0 55 0 75 0 75 0	HAHAKUA  N KONA  N KOHALA  N KOHALA  S HILO  N KOHALA  S HILO  KONA  KAU  HAHAKUA	1 1 2 5 2 3	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57	155 36 155 49 155 26 155 50 155 23 155 51 155 12 155 41 155 41 155 23	7440 4880 6960 1800 6340 2520 2340 400 305 3420		MO MO 7A 6A 7A WM WI			STATE OIV OF FISH-GAME GREENELL RANCH KURAIAU RANCH CO KOHALA DITCH CO LTD W. H. SHIPPANN LTO OILLINGHAM RANCH INC BOARD OF WITE SUPPLY HUICHINSON SUGAR CO FEGERAL ELECTRIC CORP KURAIAU RANCH CO
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144-1 PAPAIKOU MAUKA 140-1 PEPEEKEO HAKAI 144 PIIHONUA 89 POHAKULOA 107 PUAKO 95-1 PUU KIHE 120	AAAA	745 764 771 772 800 805 806 818	7 0 3 0 1 0 1 0 0 0 1 0 3 0 6 0	3 KAU 2 PUNA 3 KAU 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 HAMAKUA 1 HAMAKUA		2 1 3 1 2 1 2 1 2 1 2 1 2 1 2 1 5 1	9 30 9 22 9 47 9 47 9 51 9 44 9 45 9 59	155 29 154 57 155 28 155 06 155 08 155 05 155 10 155 32 155 50 155 24	870 5000 200 1270 100 1730 6511 5		6A MO 7A 7A 7A MO VAR 6A MO	K.	MAWAIIAN AGR CO PUNA SUGAR COMPANY MAWAIIAN RANCH CO. INC. MAUNA KEA SUGAR CO. MAUNA KEA SUGAR CO. MAUNA KEA SUGAR CO STATE OILY OF FORESTRY SIATE OILYSION OF PARKS ERWIN M. RAPP KUKAIAU RANCH CO.	UPOLU POINT USCG 159.2 WAIKEN SCO 88.2 WAIKANONOULA 178.6	90	25 0	N KOHALA 5 HILO IN KOHALA	2	19 40	155 53 155 08 155 47	1 1050 3830		8A 7A	c		U S COAST GUARD SMINICHI KANESHIRO KAHUA RANCH

† DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO DYTRA-ISLAND DIVISIONS) LAWAI: 1-(NO DYTRA-ISLAND DIVISIONS) MAUE: 1-NORTHEASTERN 2-SOUTHENN 3-CENTRAL 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Havaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Bomolulu, Bawaii, or to any Weather Bureau Office mear you. Additional precipitation data are contained in "HOURLY PRECIPITATION DATA RAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are temperature in "F,, precipitation and evaporation in inches and wind sovement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME Data in the "Wonthly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station index shows observation time in local standard time.

EVAPORATION is measured in the standard Weather Eureau type pas of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Mind" table." Max and Mind "stalle refer to extremes of temperature of wind rin par as recorded during 24-hours ending at time of observation.

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Bawaii ntate key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
- No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates.
- ++ Highest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station Index"; indicates amount carried in the "Total" column is for the period from last measurement of a preceding mouth through the last measurement of the current month. See "Daily Precipitation" table of this and previous buildtims for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- J "Supplemental Data" table
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed dally record.
- R Amounts from recording gage
- T Trace, an amount too small to measure.
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after rain.
- C in Special Column of Station index indicates Recording Rain Gage Station. Bourly precipitation values are processed for special purposes, as published later in the "Bourly Precipitation Data" bulletin. If daily amounts are published in "Climatological Data" bulletin they are from separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage the "Bourly Precipitation Data" bulletin.
- WO Gage read once monthly, usually on the last day
- OC Gage readings at periods varying from a few weeks to several months
- S Storage Precipitation Station. Precipitation measurements, made at Irregular intervals, are published in the December issue, or as delayed data in the June lasue of this publication.
- SS Observation time is near sugset
- VAR Observation time is variable.
- WI Gage read weekly or irregularly only.
- WM Gage read weekly and last day of month
- # Therecometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a bullding.

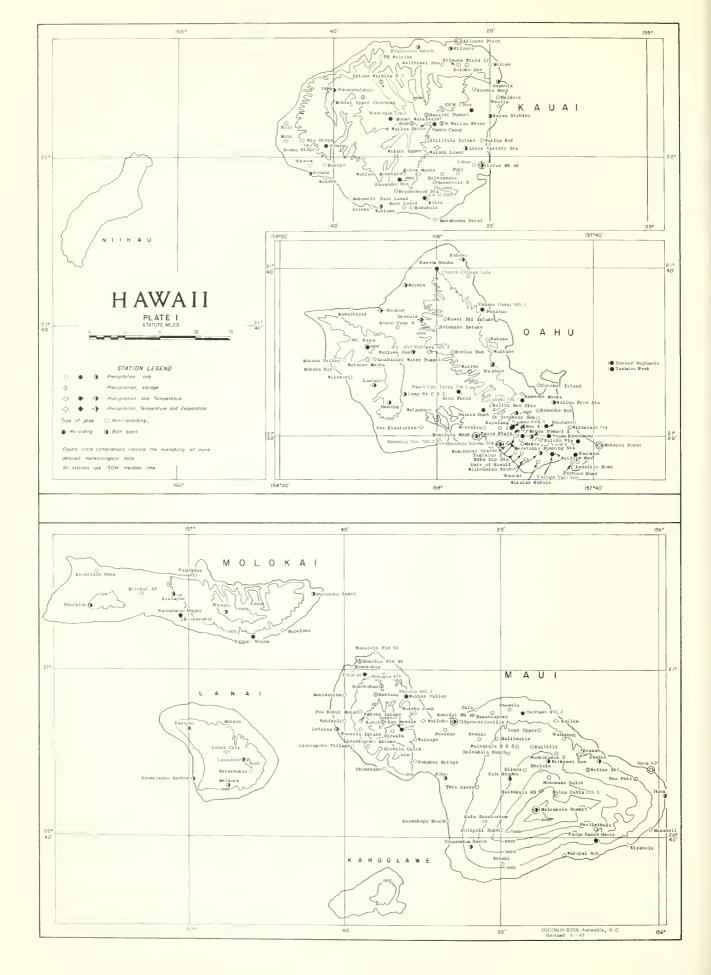
Stations appearing in the tables with no data were either missing or received too late to be included in this issue.

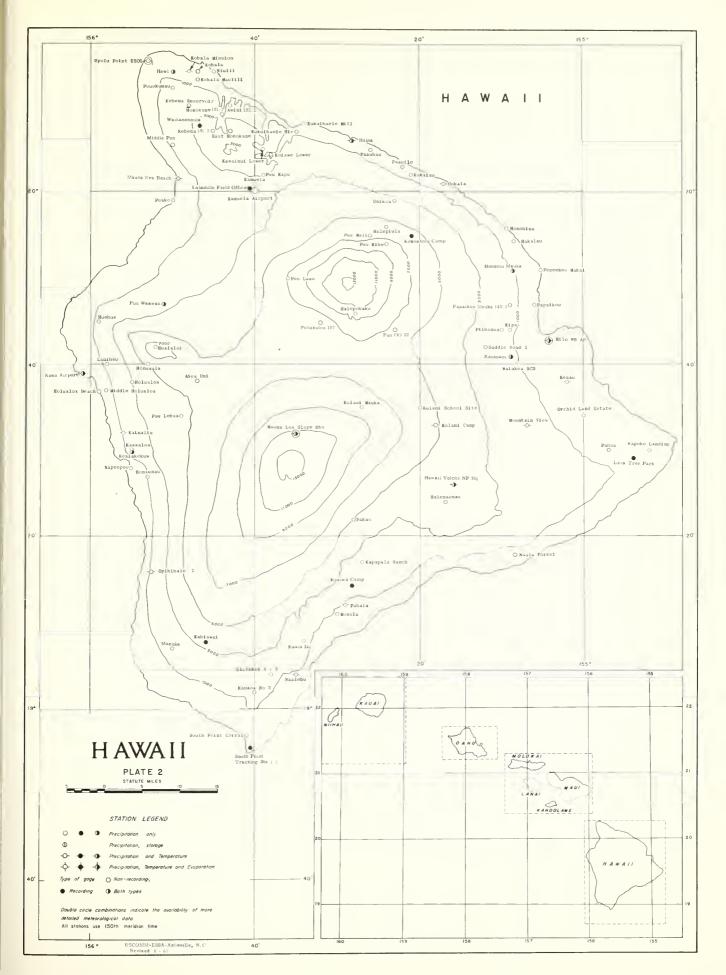
General weather conditions in the U.S. for each month are described in the publications MONTHLY WEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superlatendent of Documents, Government Printing Office, Washington, D. C. 20402.

information concerning the bistory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Bistory" for this State, price 40 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Data, price 16 cents. These publications may be detailed from the Superintendent of Documents the address shown above.

Subscription Price 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and socey orders should be made payable to the Superlatedect of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superlatedent of Documents, Government Printing Office, Washington, D. C. 2040.

USCOMM-ESSA-ASHEVILLE-8/1/68-890









U.S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
ENVIRONMENTAL DATA SERVICE ENVIRONMENTAL DATA SERVICE

HAWAII

MAY 1968

No. 5

CLIMATOLOGICAL DATA

			1		Ten	npera	ture							_			7 80	tech	oftation	. Class			(	D -
Station					leu					s Å1	Max	o. of E	Mir.			mal	Day		Snov	v, Sleet ਤੁਜ਼			o. of	Ι.,
		Average Maximum	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	Degree Da	-	32° or Bolow	-	Below	Total	Departure From Normal	Greatest D	Dale	Total	Max, Depth on Ground	Date	0	.50 or More	100
* * * 1SLANO UF KAUA1																								
NAHOLA 1111 ANALOHULUHULU 1075 APAA STABLES 1104 1LAUEA FIELO 17 1135	A A	70.9	51.0	61.0		78	19	45	31+		0	0	0	0	1.36 .54 1.56 3.24	- 1.59	. 20	5	.0	0		1	0	
ILAUEA POINT 1133		80.9	69.6	75.3		86	25	66	10+		0	0	0	0	1.94		.26	28	.0	0		8	0	
DLUA 936 IHUE WB AIRPORT 1020. ANA 1026 WALLUA OITCH 1051 H WAINIMA 1115	1 R	79.9 86.4	68.5	74.2 75.6	3	83 91	28	62 60	11 20		0 2	0	0	0	1.78 .42 .13 6.89 5.90	- 2.57 - 2.17 77 - 3.26	.19 .10	27	.0	0		1 1 7		1
UEHU RIOGE 1040 AHIAWA 930 Alahi lower 1054 Almea 947,	Α	79.2	62.5	70.9		83	31+	5 5	17		0	0	0	0	.45 .17 2.70	- 1.33 85	.45 .57		.0	0		1 0 8	2	2
1SLANO				71.4											1.93				.0					
SLAND OF OAHU																								
ONOLULU OBSERV 702.2 ONOLULU WBFC 703 AHUKU 912 ANEOHE MAUKA 781 OOLAU OAM 833	R A	85.5 81.9M 80.9	71.3 70.3M 69.7	78.4 76.1M 75.3	2.5 1.2 1.1	86	22 31 31+	66 64 65	7+ 7 11		3 0 0	0000	0 0	0	1.49 1.22 1.72 3.09 2.36	.23 44 - 1.46 - 3.75	1.27	10 13* 10	.0	0		1 2 5 6	- 0	2
UALUALEI 804 AKAPUU POINT 724 UUANU RES 4 783 PAEULA 870 ALOLO VALLEY 718	Δ	83.0 79.3 80.5	71.0 71.1 64.9	77.0 75.2 72.7	2.9	8 4	28 25 29+		6 10 8+		0	0 0	0	0	.84 3.33 3.96 1.36 4.36	2.30 - 5.87 - 1.92 - 7.76	. 40	10	.0	0 0 0		1 5	3	3
RI WAMIAWA 820.2 UNALUU 884 AMIAWA OAM 863 AIAHOLE 837	A A A	83.7	64.1	73.9		88	31		7		0	0	0	0,	1.26 3.90 1.38 4.81	- 7.34	1.06 1.52 1.22	10 10 10	.0	0000			1	L
AIALUA 847	А	83,8	64.5	74.2	. 6		29+		7		0	0	0	0	1.08	02	.81	11	.0	0		2		1
A1KIKI 717.2 A1PAHU 750 ISLANO	А	85,6	70.1	77.9		89	25	6.5	19+		0	0	0	0	.54 1.12 2.22	08	.32		.0	0		2	1	
* * * * ISLANO OF MOLOKAI																								
UALAPUU 534 APULEHU 542 AUNALOA 511 OLOKAI AP 524	Δ	80.7	68.9	74.8		85	29+	6.5	7		0	0	0	0	1.23 1.41 .80 1.14	35 - 1.30 67	.77	10 9 10 10	.0	0		3 2 3		
ISLANO				74.8											1,15				.0					ı
* * * ISLAND OF LANAI												ł												
ANAI CITY 672	Α	76.6	64.0	70.3	1.8	82	25	61	25+		0	0	0	0	2.22	45	.74	10	. 0	3		5	2	
1SL ANO				70.3											2.22				.0					
* * * * ISLANO DF MAU1																								
ALEAKALA B E S 434 ALEAKALA RS 338 ANA AIRPORT 355	А	64.5	45.8 68.8	55.2 75.7			24 25	39 61			0	00	00		2.30	- 1.77	1.42	10	.0	a		4 3 8		
ONDKOHUA 493 AANAPALI AIRPORT	Δ	84.3	68.4	76.4		89	26	63	7+		0	0	0	0	2.12	14	.67	10	.0			2	1	L
AMULU1 W8 AP 398 AILUA 446 BANAE 346	R A	84.8	65.2	75.0 71.8	3		30 30+	57 61	7+ 19+		5 0	0	0	0	2.55 3.61 9.60	1.87 - 6.31 -11.50	.78	10	.0	0		9	2	]
IPAHULU 258 ULA SANATORIUM 267		72.2	56.3	64.3	. 8	76	23	51	7+		0	0	0	a	2.20	89			. a			2	2	
AHAINA 361 AIA 406		85.4	66.8	76.1		8.8	23+	63	7+		0	7	0	0	1.42	1.07	1.44	10 11	.0	o		2	2	4
AILUKU 392		83.3	69.8	76.6	2.2	88	31+	6.5	6		0	0	0	D	2.42	1.16	1.47	11	-0			3	2	-
ISLANO				71.4											3.35				.0					

### CLIMATOLOGICAL DATA

HAWAII

Continued													_						MAY		1	968	j
				Ter	nper	ature										:	Precip	pitation					
										1	No. o	f Day	s					Sno	w, Sleet		No	of I	ays
Station	я	g a		e rmal					Days	M	lax.	M	in.		rmal	Day			pth		ore	ore.	or More
	Average Maximum	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	<b>D</b> едтее I	90" or	32° or Below	32° or Below	0° or Below	Total	Departure From Normal	Greatest Day	Date	Total	Max. Depth on Ground	Date	.10 or More	.50 or More	1.00 or N
e e e ISLANO OF H∆-AII																							
HAINA 214 HAWAII VOLCNS NP HQ 54	81.1	64.6	72.9	1.5	8 5 7 6	31+ 18		17:		0				7.12	2.20	3.15		.0	C		8		2 2
HILO W8 AIRPORT 87 R HUEHUE 93.1 A KAINALIU 73.2	82.9 79.1	68.4	75.7	2,7		30+ 26+	59	17 7+		0		*	-	2.71 4.94 5.07	- 6.62 .27 - 2.63	.43	19+ 28	• 0	0		8	3	0
KAMUELA AIRPORT 191 KEAAU 92	74.2 83.5	53.5	63.9	1.5	88	26+ 27+	58	11 13+		0	0	0	0	1.38	- 5.36	.57	20	• 0 • 0 • 0	0	)	4	1	0
KEALAKEKUA 26.2 KONA AIRPORT 68.3 KUKUIHAELE HIC 199	79.5M 83.5	64.3M 67.6	71.9M 75.6			20+		19		0				2 • 41 2 • 54 7 • 41	.70	.35 .89 2.20		• 0	0		7 5 11	3	0 0 3
KULANI CAMP 79 MAUNA KEA 8EACH 98	66.7 86.5	48.4	57.6 78.5		72 93	28+	67			0 2	0	o	0	6.38		2.00	12	.0	C	r.	11	40	2
PAHALA 21 POHAKULDA 107 A PUAKO 95.1	80.1	64.2	72.2	1.2	84	26+	56	5		0	0	0	0	3.23 .10 .60	.91	2.17 .10 .19	13	.0	C		1 3	0	0
PUU WAAWAA 94.1 A UMIKOA 118 UMIKOA 118														3.67 9.71	.94 4.65			• 0	0				
WATAKEA SCO 88.2														7.67		2.55	20	• 0	c		12	4	2
ISLANO			70.5											4.27				. 0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 93° ON THE 21ST AT MAUNA KEA BEACH 9B, HAWAII
LOWEST TEMPERATURE: 30° ON THE 3D AT MAUNA LOA SLOPE OBS., HAWAII
GREATEST TOTAL PRECIPITATION: 16.46 INCHES AT HONOKANE 181.1, HAWAII
LEAST TOTAL PRECIPITATION: .00 INCH AT 2 STATIONS, KAUAI
GREATEST ONE-DAY PRECIPITATION: 4.10 INCHES ON THE 12TH AT HANAHULI 281, MAUI

																														HAWA]	1	1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
* * * 1SLAND OF KAUAI					-						10		-12	10	14	10	10	17	10	13	20	21	24	20	24	20	20	21	20	23	30	
ANAHULA 1111 A 8RY0ESWOOD 5TA 985 A EAST LAWA1 934 A ELEELE 927 A HALAULA 1110 A	1.36 .74 1.58 .16 1.90	.02 .13 .23	.12 .05 .25	.05		•	. 25 . 27 . 61 . 08	.05	.01	.01 .03 .04 T		· T		.59				.01	:	:	.06 .01 .03	.02	.01			*	•	.01 .20 .18 .08		.14		.04 .
HALENANAHO 1006 A HUKIPO 945 ILIILULA INTAKE 1050 INTAKE WAINHHA PC 1086 A KALIHIWA1 RES 1131 A	2.35 .18 3.84 5.19 4.08	.51 .80 1.38	.37	.04	.20	.30	.53	2.27		.30 .10 .30	.10		.05	.35 1.52	.03	.03	+04	.08 .05 .27	•		.05 .10 .03	.06	.15 +	.07	.27	.08	•	.18 .08	.02	*26		.06
KANALOHULUHULU 1075 KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 A	3.11 1.56 1.87	.05 .32 .13	.22 .09 .04	.04	.08	. 20	.79 .35 .26	s 04		.33 .30 .37	.12		:	.52 .28 .41	.02	.30	.01	.04	•	:	.12	.07	.08 .06 .13	,03		.02	:	.07 .07 .10 .05	.01	.04	.02	.06 .
KILAUEA 1134 KILAUEA FIELO 17 1135 A KILAUEA POINT 1133 KOLO 1033 KOLO 936 A	2,44 3,24 1,94 .00	.23 .18 .07	.18	.01 .20		*11	.47	.01 .02	BQ.	.07	.22	•	:	.65 1.32	•01	.11		.07	:	.08	.06	.06	.05 .01 .07	.09	.02	.25	• 12	.36	.07 .26	.02		
KOLOA MAUKA 994 KOLOKO RES 1137 AUKULULA 935 LIHUE VARIETY STA LIHUE 1020 A	2.15 4.40 .80 1.62	.31 .48 .14 .21	.31	.01	. 22	• • • • 21	.55 .86 .27	.03	.01	.05 .27 .25 .18	.12			1.40	.01	.05	.02	.08	:		.06 .13 .03 .15	.07 .05 .02	.01	.12			:	.19 .03 .02	.06	.03	.01	.01
LIHUE WB AIRPORT 1020.1 R MAKAHUENA POINT 940.1 HAKAHEL1 965 A HANA 1026 MONIHI UPR CROSS 1063	. 42 .64 .09 .13	.03		.02	.19	.10		T	.06	.02	т	Т					.07				.05	.02 .09	.08			T	T •07	.12				
MOLOAA 1145 HOUNT WAIALEALE 1047 NIU RIOGE 1035 N WAILUA 01TCH 1051 PH WAINTHA 1115	1.87 13.17 .14 6.89 5.90	3.58 .82 .78	.04 .35 .76	.47	3,35	.28	.38 .16	.20	, 24	.10 .12 .14	.60		•	.57	.16	.10	.24	.16	•		.09 1.14 .10	.01	.01 .47	.24 .11	•01 •12	.08 .08	• •12	.08	,94	.45		:
PRINCEVILLE RANCH 1117 PUENW RIGGE 1040 PUH1 1013 RESERVOIR 6 1004 AMAIAWA 930 A	3.31 .45 1.36 2.08	.41	.30	• 01		•	.73 .36 .48			.04 .45 .42 .78	.05 .05		.02		.02	.03	.05	.12	:	:	.09	.11	.15	.11	,02		. 1 2	.19				
MAHIAWA MOUNTAIN 990 A WAIAHI LÜWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUM KAI 1065 A	2.38 2.70 3.08	.55	.57	.02	.39	.10	. 24	•	•	.23 .06	.09	.06	.03	•	٠	.03	•	.03			.08	.17	.06	. 02 . 02	• ,	.20	.10 .15	.05	٠	.02 .12		2.38 .
WAIMEA 947 WEST LAWAI 931 A	.00	.09	.08	.02			. 27			.31		•		.04			,05	.01			.10	.01	.07					.02				:
15LAND OF DAHU		***																•••			•											·
AlEA FIELO 625 761 A BERETANIA PUHPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT 15LANO 840,1	2.18 1.06 1.62 2.34 2.93	.08	T .14	T •09		.04			.03	.05 .08	1.53 .34 1.41 .73 1.48	. 64	.01	.44 †04	.10			.05			.01	.03	.01	.04	.05	т	.14	т	T .07	.06 .14 .06 .02		
ENA PLANTATION 741 HELEMAND INTAKE 881 A HOKULDA 725,2 HONDLULU OBSERV 702,2 HONDLULU WBFC 703 R	1.42 1.67 1.55 1.49 1.22	.01	* *	.05 T	• T	• T		*	• T	.05 .02	1.10 0 1.43 1.06	. 27 •	* T	1.15	:	: :	, OB	.01	•		•	:	* •	. <sup>2</sup> 1	.02	:	* *	:	.18	* *	:	.06
HONOLULU SUBSTA 704 H S P A EXP STA 707 KAMANA 883 A KAMUKU 912 KALLUA FIRE STA 791.3	.85 .94 8.89 1.72 3.60	.03 2.04 .02 .32	:01 :06	.05		.°°1	1.30	•	.03 T .04	.12 .01	.48 .31 .33	.71	.01	3,54	* †10	•	•	.06	.54	:	1.18 .04	.05	.02	•	.04	:	:	:	.02	.09 .13		:
KALIMI RES SITE 777 KANEDME MAUKA 781 KANEUME RANCH 838 A KAPALAMA 773 A KAWAIMAPAI 841 A	3.34 3.09 6.35 1.30	.56 .03 .16 .19	.11 T	.01	.32	.02	T	Ť	.12	.20 .04 .16	.90 1.27 2.90 .50	.06 .92 1.30	.01	.01	.20 .04 .10	.02	.01	.42 .05	.12		.ns	•02		.03	.01	.01	.34	*10 *05	.02 .09	.13		
KAWAI IKI INTAKE 880.2 A KEMOO CAMP 8 855 KOOLAU OAM 833 LUALUALEI 804 LUALUALEI WTR TUNNEL A	2.20 1.43 2.36 .84 6.50	• 42	.16	• • • • •		.08			• T	• • 43	.55 .83 .84	* * *10	.72					.08	:		.12 .04 T	.04	.02	• • 0 2 •	•			*12		.04 6.50	•	2.20
LUNALILO MOME 724,2 MAKAMA KA1 796 MAKAMA VALLEY 800.1 AMAKAPUU POINT 724 MANDA 712	1.25 .44 .52 3.33 1.79	.61	.19		.02			.02		.11	.90 .39 .46 1.42	.05 .06 .69	.09				٠	.60	. 42							7	.03			.05		
MANDA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 183 NUUANU RESERVOIR 5 775 A OPAEULA 870	1 1	1.12 .04 .60	.12 .05	.02	.06	.02			. 02 . 08 T	.46 .05 .22 T	.82	.42 .02	.02 +	• 27	•12	•	.02	.01	:	.07	.04 .52 T	.07	.02	٠	.04	.18	. 32 •	• 04	.57 .27		.52 .03	1.09
PALOLO VALLEY 718 PAUDA FLATS 786 PORTLOCK ROAO 724,6 PRI NAMIANA 820,2 PUNALUU 886 A	4,36 6,60 1,64 1,26 3,90		.18	.02	.02	.02 .02	.05	.02	.18 .07	.54 .36 .67	.68	.16 .08	.02	.34 .15	.10 .32		*02 *05	.70 .50 .21 T	:	:	.01	.01	.02 .02	•	.04	*22	*22	• 02 • 02	:02 :18	.48 .01	. 38	2.80 .
PUNCHOUL CRATER 709 A ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF MAMALI 713 A MANIAHA OAM 863 A	1.35 3.90 3.60 1.08 1.38	.01 .10 .78	.02 .30 .39	.02	.01	•	. 05 T	.01		.11 .01	.33	1.10	† <sup>01</sup>	.30	.06	Ť	T	.05 .16 .11	.02	.01	.02	.02	Ţ	T *	T .02	.06	.16 .27	.09	.04	.18	.01	.31 . .04 . T
WAIAHOLE 837 AAIALAE KAMALA 715 WAIALUA 847 AAIANAE 798 AAIANAE MAUKA 803	4.81 .99 1.08 .49 2.16	.74 .05 7	.29 .01 T	T	.12	.01			.03	±04 T	1.32 .58 .19	.15 .91 .01	* T	.01	• 19	.03	T •	.11 .07 .02	* T .06	•	. 28	• 05 T	,08			.07			. 52 +	.09	† <sup>02</sup>	. :
MAIAMA 836 A MAIKANE 885 A MAIKINI TIT.2 MAILUPE MESV. 723.2 A MAIMANALU 794	4.20 5.89 .54 1.34 3.96	0 8	.06	.03	• • T	* * T	.34	:	* * * * * * * * * * * * * * * * * * *	.06 .03	.32	.12	• • T	3.12	:	•	* *	.04 .2T	* * * * * * * * * * * * * * * * * * *	•	.98	* *	•	. 2 4	:	:	:	:	• • 47 •	.26		4.20 .
MAIMEA 892 A WAIPAHU 750 A WILHELMINA RISE 721	.97 1.12 1.12			.01		٠	•01			,09	.17	:	:	.27		.02	,03	.02	:	:	.06	.14	.02	.08		٠	٠	• [	.02 .16	•18 •02 •02		:

See reference notes following Station. In-

Continued														-	Dav	of M	onth														на <u>а</u> наяа1	1	1968
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
TSEAND IF MILDRAT																																	
ALAUPAPA 563 AUNAKAKAI 536 EONELELE PENS 551 JALAPUU 534 APULEHU 542	A A A	2.50 .92 1.70 1.23 1.41	.07		.01	.13	٠	.03		,06	.01	.T4 .85 1.70 .76	٠		.07			<sub>+</sub> 31	.05								.07						
AUNALOA 511 OLOKAL AP 524 UUCHOKU RANCH 542:1 ALKULU 540 O O O ISLANO UF LANAI	Δ	.80 1:14 1:27 2:55	, 05				#04 #04	T .36			.80	.60 .63 .35	, 32	Ť	1.31					† 15 †	Ť	. 97		.03				T	.31				
ANEPUU 690 AUMALAPAU MARBOR 658 ANAI CITY 672 ANAIMALE 684 AMANA 694	A A A A	1,53 1,06 2,22 2,83 1,55		.08 .06 .72	:	:	:	:		.03	.12 .28 .07	.92 .74		.01	.14 .13	•	:	1.29	* :18 *	· · ·		:	.03	•	,04 ,26	:	•	.06		:	:	20	.06
LLAUEA 676 LIAKEAKUA 685 	Δ	1.62			٠		•	* T	•	•	•10	1.44	:	:	.41	•	•	1.52	٠	٠	•	.06	٠	•	•	٠		٠	•	•	•	٠	.25
IWAM! 252 LEAKALA 8 E S 434 SEAKALA RANCH 432 LEAKALA RS 338 SEAKALA SUMMIT 338.4	A A A	3.93 2.63 2.02 2.30 4.42		*05 *	٠	. 02 *	* <sup>2 5</sup>	•		* *11 *20	* T T		.47 .56 1.25	1.30	.07	•01		.09	Ť				.04						.02	.04	т		, 3 f
HILLE 423 MAKUAPUKO 485 INA 354 INA AIRPORT 355 INAHULI 281	Α	2.45 2.69 4.21 4.24 8.25	.06 .29 .25	*03 *01 T	.03	01 T	.04 .03 .07	.45	.14	T .06 .56 .43	.85 .31	.82 .61 1.61 .87 .40	.74 1.20 .66 1.10	.03 .42 T	.08	• 02 • 0 0	.01	,08 ,09	.04 .06		. 03	.19 .01 .09	.05 .09	. 20	.02	T T	7	.21 .30 .26	.41 .44 .32 .23	.02 .15 .01 T	.06 .06	.10	.03
LUA CABIN 259,5 NOKUHAU 480 NOKUHAU 493 NOMANU GULCH 341 ANAPALI AIRPORT MOMA INTAKE 374	A A A	4.43 7.60 2.12 1.43 1.11	.04	* 02 * 02	3,25		:	:		:		.67 .73	, 35	:	.03			•	1,05			•	06	02	•				.48	.06		•	1.4
HULUI WA AP 398 1LIILI 436 1LUA 446 UAULA INTAKE 375	A A	2.56 3.86 3.61 2.38	*34	.21	T • • 02	T *	.09	• •01 •13	*	.01	.01	78 •91	; <sup>11</sup> ; <sup>71</sup>	•	2.17	.06	.01 +	*02	* 06	٠	* 03	.n6 .n6	10 10	*01	•	•	•	:11	.15	.43	.03		3.8
AMAE 346 AMAKAPU BEACH 260.2 HEI 311 PAHULU 258 LA HEIGHTS 323.2 LA SANATORIUM 26T	Α	9.60 1.94 7.05 2.10 2.20	•	.12	.08	-	:	-		.01	, 26	1.24	3, 85 1,12		· ·	-	* -	-	-	-	:	.04	.03	:	•	:		.46	.27	.09	.05	-	9.6
MAINA 361 UNIUPOKO INTAKE 376 UNIUPOKO VILLAGE 372 PI UPPER 442 HINAHINA 466	A A A	1.42 3.00 1.58 5.00 1.37					•					,98	.50		.08						•	•										•	3.0
MALELE FLD 50 497 1NDA 332 OMALU 296 OMALU GULCH 377 AKEA 350	A	2.53 2.34 1.50 1.20 6.71	.01	, 58	* • 21		.27	.11		.03 .29		1.34	.55		1.53 .05	.01 .45	.06	.07	.07	.03	. 20	.62		.06	•			.12	.2T	.01			1.2
IA 406 NILEIHULU 259.2 UHELA 490 MAKEA 8910GE 307.2 LIPOLI SPRINGS 267.2 OMDKAMUA 2 343	A A A	2.34 10.30 3.19 2.58 .31 9.00	,06	.02 1.70 .04		:	.03			:		.70	1.21	:	1.30	:	.06	:	.01	:	:	.04	.07	:10	:	:	:	:	.09	.97	:15	:	9.0
U KUKUI MAKAI 472 UNENE 396 RECKELSVILLE 400.2 IN GATES 201.3 ULELE 333	Δ Δ	1.00 2.55 2.41 3.20 2.08		.01	.01					T		. 01	1.73 1.77 3.20	٠					.01 T			:	.01					•	.01			•	2.0
UMEMAME 301 UPALAKUA RANCH 250 HIKULI 364 16HU CAMP 484 1MEE VALLEY 482	Α	2.00 2.88 1.45 2.49 2.28										.78	.05 1.94 .66 1.37 1.12	.01	.02				.20			.16							.05	.03			
1KAM01 449 1KAM01 DAM 336 1KAPU 390 1LUKU 392 10PA1 KANCH 256	A	6.50 5.83 2.75 2.42 3.35	.41	,38	.11	•	•	.57	Ť	.06	Ť T	1.16		:	.78		Ť	.13		•	:	1.10	.19	Ť	•	•	:	:	.01	.58	.01	.07	6.5
* * * SLANO UF MAWATI																																	
UA UMI 75 191 182.1 57 HUNUKANE 183.2 194 214 KALAU 142	Δ	4,90 11.87 10.53 7.12 4.45	*31	.21 e .04		*10	* * *27	.30 .06		* 02	•	.03 .02		.02	1.57			.10	•	.02		7.13 0 3.15 1.31		•	•	:11	:	:	.73	.04	:07	•	10.
LEMAUMAU 52 LEFTULA 117 LEFTHAKU 111 MAII VULCNS NP HQ 54 #I 168 LO WB AIRPORT 87	A A A	4.04 4.25 1.11 6.55 1.77	.12	.15	. 15		* * *	.02		.02	.04	.02	٠	2,45	.16	• 02	1.10 .04	• • • • • • • • • • • • • • • • • • • •	• • • T	.02	•	1.50 .R3	.02		:	:	:	.05	.02 .09	.01			***
LUALUA 70 LUALUA BEACH 68 NAUNAU 27 NDHINA 137	A A	2.71 5.80 1.95 2.01 5.03	, 26	.55	. 44	.03	.04	· 02 · 01		*	*	.43	.05	.32 * 1.0T .25		.05				,03	,10 ,53	.50 .13	.20		.04	.02					.02	.04	
NOMU MAUKA 138 NUAULA 71 ALALAT 72 EMUE 93.1 ALA IKT 12	Δ Δ Δ	7,45 1,60 1,20 4,94	* 21	93	1,01	:	21	• 06	•	• 01 • •	:	• 07	.02	:	.57	.62 e .59	.24	.36	.05	:	.58	13.51		:	:	• • •	•	:	.16	:18	.03	1.60	•
AHALUA 29 ITMALTU 73.2 LAPANA NO 1 67.8 MAJA NJ 2 5	А	2.22	.07		.05	.02	* T	.05		:	+05 +07	.02 .03 .22	.42	+40	. 46		.25 .51	:	1:72	•	:03	1.22	.03 .20 .61	.20	.04	T .	.30	:01	*18 *20	1.94 1.94	.24	.10	

Continued			,																												HAWA!		1968
Station		Total				,									Day	of M	onth																
		-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36 KAPOHO LANOING 93.5 KAUMANA 88.1	A	2.90 1.38 7.13 8.37 8.76	T • •56	.03 T .05	10 3.28	.03	*°2 T	.03 .02	•	.04	* O 7	.03 .06	*06 T *	.27 .21 1.74	2.40	*07	T + +05		T •04 2•50	. 57 •	. 32	1,37 ,57 1,50 9	.10 T .15 *			.25	.02	* 02 T	.02 *	* .20	.05	.03 .03 .02	.02 .02 .35 .03
KAWAINUI LOWER 193 KEAAU 92 KEALAKEKUA 26,2 KEMENA 181,2 KIOLAKAA A F 6	A A	24,42 4,52 2,41 7,67 5,10	* 17 * 01	.67 *	4,30 ,25 ,06		* 02 * 01	*13	* 02	:	* 04 *	1.02 .02	* 05 * 24 *	.16 .26		* 03	.08 .09	.09	3.60 *	:	.50	.78	. 45 . 22	.03 .35	*	14,30	:	* T * *	.43	.08	* 01 1	, 31	1.20 . .10 . .35 . 7.67 .
KIPA 89,2 KOHALA 179,1 KOHALA MAULILI 176 KOHALA MISSION 175,1 KOJANE LOWER 196	A A A	8,66 1,70 3,37 2,49 16,44	.22 ,05 .05	.94 .15 .16 .20	.28	.50	*06 *	.06 .11 .15 .01	*01	.01 T	T .	1 •15 •09 •21 •58	*05 * *15	.04	.45 .27 .65 .11	.17 .05 .16 .05	.04 .01	.21 .01 T	3.04	* *	1.80	2.65 .62 1.50 .64	.51 .01 .01			.01	:	:	02 07 25	.45 .02 .05	•07		,06 ,
KONA AIRPORT 68,3 KONA VILLAGE 93,8 KUKAIAU 22, KUKUIHAELE MIC 199 KUKUIHAELE MILL 206	Δ	2.54 .39 9.22 7.41 5.02	.10 .02 .02	.10 .10	. 56	.36	*12 *16	.01 .10 .32			.01		.05 .04	.56	.05 2,59 1.40 1.30	.01 .86 .50	.26 .10	.18 .29	.01	.08	1.77		.68 .20 .14	.01	T			.03	.89	.05	.05		.04 .
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68,2 MANUKA 2	A A	6.38 2.18 9.83 2.65 1.69	.17 .05 2.90 .22 .18	.20 .03 .40	•	.06	• 01	.05 *	.03	.03 .10	.10	T . 25	.60 *	.46 .75	.44	.75	* 08 * 17 * 02	.02 .11 .10	2.96	.05	.49	2.00	.10	.02	٠	2,57	* .09	.10 •	* •30 •11	*	*	• • 05 T	.05 . .75 . .17 .
MAUNA KEA BEACH 98 MAUNA LOA SLOPE OBS M100LE MOLUALOA 68.1 M100LE PEN 147.1 MOAULA 18	A A	.88 1.59 .84 4.98 2.00	.04	:	:	:	:	:	:	: 36 • •	.12	:10	.03	.39	.06	3.03	:	, 1 8 *	.03	:	.03	* * *	:	:	:	:	:	:	:01 :30 *	. 28	:	:11	1.95 .
MOUNTAIN VIEW 91 NAALEMU 14 NAPOOPOO 28 NAULU FOREST 38,6 NIULII 179	Δ Δ	8.29 1.62 1.39 3.06 1.95	.16	.40 .15	.20	.02	• 05	.13	.03	:	:	.02 .29 .10	*11 *58 *	.35	.88 .51 .36 •	.20 .01	.04 T	•12 • • •01	T * 1.29	:	1.48	2.35 .50 .28 .78	.56 .01	٠	:	:	T * .05	.02	:12 :01 :62	*41 T *	.05 .01		• 07 •
OCKALA 223 OPIMIMALE 2 24.1 ORCHIO LANO EST 91,5 PAAUMAU 217 PAAULO 221	Α	7.42 2.97 12.78 6.05 8.52	.20 .02 .04	.20 T • •02 •05	.66 7.25 .52	.35	.06 .19 .15	.09 .04 .02		.03	Ţ	.23	.02 .94 .01		3.38 .02 .02 .01	.08 .01 .36	.09 .10 *	.22 .03 2.76 .14	T . 01	.01	02	2,28	.21 .05 .06		•	7 2,12	:13 *	Ť.	.15	*11 † * *02 †	*02	*09	.42 . .46 .
PAMALA 21 PAMOA 65 PAKAO 37 PAPAIKOU 144.1 PAPAIKOU MAUKA 140.1	Α	3.23 8.97 5.00 2.85 7.68	.06	.45 .49 1.09	.05 • .28 1.13	.06	.03 • .02 .13	*15 * *01 *03	* T	٠	.03 •	.01	.06 .35 .05	.25 1:15	2.17 2.91 .39	•02 •05 •24	.05	.17	٠	•	.74 .04 1.15	1.15 1.69 1.93	.01 .34 .27 .26	*04	.05	•	•	• T T	.27 .12 .17	.16	:04		.04 . .07 . 5.00 . T
PEPEEKEO MAKAI 144 PIIHUNUA 89 POMAKULOA 107 PUAKO 95,1 PUU KIME 120	A	3.53 9.40 .10 .60 5.09	:16	; <sup>51</sup>	52	:01	÷11	.05	• 01			• • • • • • • • • • • • • • • • • • • •	.02	.17	.25 .10 .01	•02	10	:19		٠	:12	.69 .01	:17				٠		.30	÷ <sup>03</sup>	٠	.07	9.40
PUU LAAU 102,1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU 00 82	4 4 4	2.10 3.80 1.49 4.48 4.66	.03	.03 .25	29	.10	.04	.10	.03	.04	.05	• • • • 12 • 01	:	:	.55	.10 .04	.01	.01		:		2.85 1.55	.03	:	:	.01	.10	.05	. 33	.02	:	:	2.10 . 3.80 . 1.49 .
PUU HAAWAA 94.1 SAOOLE RUAD 1 84 SOUTH POINT CORRAL 3 UMIKOA 118 UPOLU POINT USCG 159.2	A A	3.67 16.92 3.40 9.71 2.03	1.12	.02	.13	• •20 •43	•	.19	:	• • •	02	.05	1,38	* * * * * * * * * * * * * * * * * * * *	1.78 0 2.76	• • •41	† * * .16	.33	1.00	:	* * * 32	.63 1.75 5.40	٠	٠	٠	4.20	٠	:	.13	* 05	:	* 02	42
WAIAKEA SCO 88,2		7.67	.18	.55	.10	.05	.02	.03					. 28	T	.61	.16	.02	.08			2.36	2,55	.22						+15	.11			.20 .

### SUPPLEMENTAL DATA

		(		nd - m.p,h.	.)		Relati	ve hum	idity ave	rages -		Num	ber of d	ays with	т ргестр	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	IR MERI	DIAN TI	ME 8 PM	Тласе	0109	1049	.5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO, HAWAII, WB AIRPOPT	11	ಿ.8	6.6	20	SE	25+	84	76	67	80	9	10	8	n	0	n	26	47	7.5
HONOLULU, OAHU. WB AIRPORT	5	7.7	9.9	27	NF	02	74	65	54	67	11	3	1	c	1	0	16	58	A . 2
KAHULUI: MAUI: WB AIRPORT	4	8,9	10.5	28	NE.	21	89	73	59	77	9	2	2	0	1	n	14	62	5 , 7
I THUE - KAUAI - WE AIRPOPT	4	7.6	9.3	23	Е	02	87	81	71	82	6	5	1	0	0	n	12	A4	5 . 4

## DAILY TEMPERATURES

										DF	\IL	Y '	TE	MF	E	RA	TU	RE	S												AII		1968
Station																Day	of Mo	nth							- 1								rerage
		ì	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Av
• • •																																	
ISLAND OF KAUAI												70	7.0	72	7.0	71	72	72	73	78	76	75	73	75	76	73	70	72	73	72	74	72	70.9
KANALDHULUHULU 1075	MIN	55	71 55	69 57	55	62 53	63 48	65 47	68 48	51	50	70 48	70 50	50	72 52	52	54	45 78	47	48	50	58	59	57	57	47	49	50	47 83	48	48	45	51.0
* ILAUEA POINT 1133	MIN	70	79 68	76 67	74 66	78 66	66	79	68	79 68	73 66	78 67	70	71	70	79 69	68	70	72	71	69	72	67	74	71	73	71	72	72	71	71	72	69.6
LIHUE W8 AIRPORT 1020.1	MAX	79 71	79 70	78 70	67	77 67	67	78 67	79 55	67	78 65	78 62	64	79 68	71	78 68	78 68	79 63	65	70	81 71	71	81 71	82 72	73	82 73	82 71	70	83 72	68	69	82 68	79,9
MAKAHUENA POINT 940.1	MAX	71	81 71	71	81 70	67	69	81 69	63 68	67	81 69	67	68	68	72	68	65	69	67	85 71	85 72	71	85 74	85 74 88	85 73 87	86 74	72	73	85 72	70	72	72	70.3
MANA 1026	MAX	67	65	87 62	63	8 6 6 2	62	63	85 66	81 65	85 67	65	64	83 64	86 66	64	63	63	63	62	60	70	68	67	66	67	66	65	65	66	91 66	90	86.4
NIU RIOGE 1035	MAX	62	60	60	90 59	80 58	80 57	80 64	60	79 60.	63	81 61	81 60	60	81 60	81 60	80 59	60	61	60	8 1 5 9	60	81 65	65	65	85 66	63	64	83 65	8 2 6 5	65	65	81.0
MAIAHI LOWER 1054	MAX	78 65	76 63	77 63	76 63	71 63	77 60	76 60	75 61	78 64	79 61	76 60	78 60	79 59	79 66	80 58	79 58	8 O 5 5	81 58	63	81 66	66	81 67	82 68	82 68	82 66	81 66	65	82 64	82 61	83 61	60	79,2 62,5
0 0																																	
ISLANO OF DAHU																																	
EWA PLANTATION 741	MAX MIN	82 67	83 65	84 66	84 65	84 64	82 62	81 61	81 67	80 65	83 69	82 67	83 66	84 68	84 68	84 64	85 65	80 68	85 64	88 65	87 68	87 70	87 69	87 68	85 67	87 66	87 68	88 67	89 66	86 68	85 68	89 66	84,6
MONOLULU W8FC 703	MAX MIN	83 72	84 71	85 72	85 72	84 71	83 66	83 66	82 71	80 70	8 2 7 1	83 68	83 70	85 73	85 73	86 71	86 71	83 70	88 69	88 68	88 75	90 76	91 75	90 74	86 73	87 71	86 73	87 74	88 71	85 71	86 72	89 70	85.5 71.3
HGNOLULU SU8STA 704	MAX MIN	79 72	8 O 7 2	8 O 7 3	80 73	79 72	79 71	78 70	80 72	78 71	79 71	82 69	80 71	81 73	8 1 7 2	80 72	80 72	80 71	82 69	82 71	85 74	83 75	85 75	8 5 75	84 76	85 74	83 76	83 75	84 74	83 69	85 74	84 75	81.6 72.5
KAHUKU 912	MAX MIN	81 70	79 70	80 68			80 71	81 64	81 68	81 67	84 69			81 66	81 69	81 71	80 72	80 69			82 70	81 72	83 74	83 74	83 74				84 71	84 75	85 72	86 70	81.9 70,3
KANEOHE MAUKA 781	MAX MIN	80 69	77 69	8 0 7 0	80 69	79 69	80 66	80 67	8 O 6 B	80 68	80 68	78 65	79 67	80 68	79 68	80 68	81 68	80 69	79 68	82 68	83 69	82 72	8 2 7 7	82 76	83 73	85 74	83 73	8 2 7 2	83 70	83 71	80 71	85 71	80.9 69.7
LUALUALEI 804	MAX MIN	8 4 7 3	80 72	8 2 7 3	82 73	73 65	83 63	8 2 7 1	83 68	82 68	78 70	70 68	82 70	83 68	84 74	84 71	83 70	8 5 7 3	80 67	82 68	8 5 77	86 76	85 76	86 77	86 70	86 74	86 72	87 75	88 71	85 70	85 70	86 68	83.0 71.0
MAKAPUU POINT 724	MAX MIN	78 70	8 1 7 1	77 70	79 70	8 2 7 2	78 71	79 70	79 69	78 71	74 66	76 68	79 71	78 71	79 <b>7</b> 2	78 71	79 70	77 71	78 72	80 70	79 71	80 72	79 72	78 71	80 74	84 73	83 72	81 74	80 72	81 72	83 73	81 73	79.3 71.1
UPAEULA 870	MAX MIN	78 65	80 67	77 64	30 69	78 64	79 59	77 60	78 59	78 63	75 63	84 67	80	78 66	78 66	81 64	83 64	81 64	83 65	83 62	83 67	83 67	80 68	80 69	81 68	83 65	83 66	82 65	83 65	84 66	81 66	83 66	80.5
PRI WAHIAWA 820+2	MAX MIN	82	80 63	82 66	82 63	82 62	83	9 2 5 7	80 62	80 63	78 65	81	79 64	81 64	82 67	85 64	84	94 65	86 62	86 63	97 62	86	85 69	8 5 6 9	86 64	86 64	87 63	86 67	87 63	87 65	86 65	8 8 6 4	83.7
MAIALUA 847	MAX	93	81	82 63	82	8 2 6 2	81	81	80 63	84	8 O 6 B	81	80 68	80 66	83 65	85 62	80 64	83	80	81 62	86 63	87	87	87 67	87 63	87	89 63	87 67	87	89 66	88 65	88	83.8
wAIKIKI 717.2	MAX	8.5 7.1	83	8 4 7 1	83 72	86	83	84	86	83	84	83	85 67	83 73	87 72	84	85 72	85	87	86 65	88	86 76	86 74	88	87 72	89 70	88 72	88	86 71	87	88	87	85.6 70.1
																				-										•			
ISLANO OF MOLOKAI																																	
MOLOKAI AP 524	MAX	78 69	78 69	78 69	75 68	80 71	78 66	77 65	81	79 70	79 68	78 69	79 69	78 71	80 70	80 69	80	80 68	81	80	83	83	81 71	83	84	83	85 71	83	84	85 68	82 67	83	80.7
		0,		0,	0.0		00	0,5	0,	, ,	00	07	07		70	0,7	00	90	00	00	09	07	/1	71	70	71	/1	72	07	00	07	07	00,7
ISLAND OF LANAI																																	
LANAI CITY 672	MAX		76	75	74	72	73	76	75	75	75	74	76		77					78	77	78	79	80	80	82	78	61	80	78	78	79	76.6
	24114	0.4	04	02	0.9	64	01	03	04	0.3	00	04	04	02	0.5	05	64	62	54	62	64	65	65	66	64	61	65	66	65	65	63	66	64.0
ISLANO OF MAUI																																	
HALEAKALA RS 338	MAX		59			65		65		62	63	63	61		64	66	67	63	63	66	67	69	68	66	72	67	66	67	64	64	67	65	64.5
HALFAKALA SUMMIT 338.4	MIN	53	53	51	55		59		63	60		50 59	60	51 59	60	45 59	61	60	60	49 59	48 58	54	52	50 54	50	46 62	61	62	41 57	61	43 62	64	45.8
HANA AIRPORT 355	MIN	36 78	81	38 82	80	81	80	80	82	82	83	41 79	35 80	80	41 81	81	43	82	39 83	4.5 8.3	43	40 84	39	40 85	45	44	84	40	43 85	46 85	46	47 86	41.6 82.6
KAANAPALI AIRPORT	MIN	68	71 83	72 84	82	67 84	83	6 <b>6</b> 82	84	82	68 81	69	69	69	69	64	62	67	65	73	69	73	72	72	73	73	72	72	68	69 87	70 85	68	68.8
KAMULUI W8 AP 398	MIN		70 85		68		63	63	68	72	69 79	69	69	69	73	68	67	68	69	64	72	72	73	65	66	68	70 87	7n 86	65	68	67	66	68.4
KAILUA 446	MIN	73	6 8 75	68 77		65	57 77	57 78	66 78	65	68	69	69	70	68	66	62	61	62	72	70	70	63	63	64	63	67	67	61	64	63	62	65.2
KULA SANATORIUM 267	MIN	69	65 71	67 71	71		63 72	63	63	63	64 72	66 75		66	66	62 71	61 70	62	61	61	67	80 68	64	69	69	81 68	81 68	81 68	68	80 67	64	67	78.4
LAMAINA 361	MIN	55	55	56 86	51 85	52	51	51	52	5 B	59	61	52	60	60	55	54	55	56	55	74 56	73 59	75 58	76 58	73 57	73 56	75 57	72 58	73 57	73 57	58	56	72.2
MAILUKL 392	MIN	65	64	64	63		63	63	68	67	68	69	69	69	69	65	65	67	65	65	86 67	71	68	68	69	86 67	86 69	69	67	69	68	67	85.4
	MIN			70	66	67	65	68	69		68	78 70 Refere	70	83 71 otes Fol	81 70 llowin	84 68 Statio	82 67 on Inde	83 70 x	70	84 74	83 72	83 73	85 72	86 72	86	88 70	86 74	85 73	80 70	86 68	87 68	88 72	83.3

Continued										$\mathbf{D} \boldsymbol{P}$	\IL	Y	TE	MI	E	RA	TU	RE	S												A11		1968
Slalion																Day	of Mo	onth															Average
	,	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
* * *																																	
15LAND OF HAWA11																İ																	
HAINA 214	MAX MIN	79 63	79 64	85 63	77 62	80 62	79 62	79 62	80 64	81 64	81	7 8 66	81 68	78 66	79 65	79 64	80	80	82 63	8 2 6 9	79 68	82 67	83 67	84	81	85 63	83 67	84	8 2 6 4	83 63	93 65	85 64	81.1
HAWAII VOLCNS NP HQ 54	MAX MIN	68 50	67 52	67 56	66 50	69 49	64 50	65 49	68 57	6 8 5 8	6 8 5 3	68 53	74 59	68 58	73 57	68 53	70 54	71 49	76 54	75 54	73 59	71 56	72 52	72 52	75 52	74 52	75 57	72 55	66 53	71 53	73 51	70 55	70.2 53.6
HILD W8 AIRPORT 87	MAX MIN	79 65	82 67	81 68	81 66	77 67	81 67	82 66	83 68	83 69	81 70	82 72	83 72	82 71	82 72	81 69	81 68	82 64	83	83 73	84 73	85 67	8.5 6.6	84 67	87 67	87 68	85 71	80	85 66	86 69	87 66	86	82.9 68.4
KAINALIU 73.2	MAX MIN	77 63	77 62	76 61	77 63	78 62	79 59	78 59	78 64	77 65	79 68	81 68	80 69	80 68	81 67	80 63	79 64	78 62	80 61	82 63	82 66	82 69	79 67	79 64	80	80 62	82 66	78 64	78 63	78 67	79 64	79 64	79.1 64.2
KAMUELA 192.2	MAX MIN	70 55	69 57	70 57	69 55	72 55	70 54	70 53	77 56	75 55	75 55	77 58	80 63	73 60	74 60	72 58	74 58	76 50	80 53	80 60	74 62	74 60	76 59	75 50	76 53	80 50	81 53	75 60	73 60	74 55	8 O 5 5	78 54	74.8 56.2
KAMUELA A1RPORT 191	MAX MIN	70 51	71 53	70 50	68 50	70 54	71 49	72 48	74 48	73 47	74 47	75 45	76 61	73 47	74 48	74 57	73 57	75 57	76 56	76 49	76 65	74 58	78 52	77 59	77 59	78 58	78 60	75 51	75 53	75 58	76 57	76 56	74.2 53.5
KEAAU 92	MAX MIN	80 63	79 65	81 64	81 62	81 62	81 62	79 66	81 64	83 67	84 67	84 58	84 58	84 58	85 68	81	83 66	81 61	85 66	85 66	85 66	85 66	85 65	85 65	85 66	88	88	88	81 65	84 66	86 65	87 66	83.5
KEALAKEKUA 26.2	MAX MIN	79 63	79 62	77 63	78 64	78 62	7 <b>7</b>	78 62	78 64	78 64	79 68	81 67	80	8 2 6 8	81 67	81 65	79 63	79 62	80 62	81 63	82 66	81 68	80 66	78 64	80 64	80 62	81 65	80 64	78 62	79 66	80 64		79.5 64.3
KOHALA MISSION 175.1	MAX MIN	78 66	78 65	77 66	78 66	78 64	7 <b>7</b> 65	77 62	79 64	81 67	81 67	75 68	78 70	79 68	80 68	80 67	<b>7</b> 9	79 62	81 65	82 67	77 71	81 71	8 2 70	8 2 70	81 67	83 66	82 69	8 2 6 8	81 67	81 67	81 68	82	79.7 67.0
KONA AIRPORT 68.3	MAX MIN	84 68	8 2 6 8	83 68	83 67	82 68	82 69	82 69	83 68	82 68	8 2 6 8	83 68	83 69	84 69	84 70	84 64	84 66	8 2 6 8	84 68	87 61	86 67	83 66	83 67	83 67	84 68	83 68	83 69	83 68	84 69	84 67	86 69	85 68	83.5 67.6
KULANI CAMP 79	MAX MIN	63 48	62 48	61 48	60 42	62 44	66 48	60 40	63 50	63 52	69 55	68 53	70 51	67 54	69 54	68 48	67 54	69 50	70 52	72 51	71 59	66 51	66 42	66 45	6 8 4 6	71 40	67 41	69 44	72 54	67 44	68 44	68 49	66.7 48.4
MAUNA KEA 8EACH 98	MAX MIN	84 69	86 70	87 71	85 67	84 69	86 69	86 67	84 72	83 71	84 71	87 73	88 73	8 2 7 2	87 71	88 71	88 71	88 68	87 68	91 73	88 73	93 73	85 70	88 69	86 68	87 70	86 72	87 71	87 70	86 70	88 73	85 71	86.5 70.5
MAUNA LOA SLDPE 085	MAX MIN	50 34	54 31	53 30	54 35	54 33	56 34	57 40	47 40	52 39	51 39	54 39	59 41	50 39	52 37	52 37	52 36	54 34	56 34	56 38	58 39	60 40	57 39	60 39	63 44	62 43	60 42	58 42	58 40	56 38	56 37	57 37	55.4 37.7
MDUNTAIN VIEW 91	MAX MIN	76 58	70 58	76 60	74 57	78 56	76 56	74 57	77 56	79 60	79 62	8 <b>2</b> 6 4	79 64	77 63	80 63	74 61	78 61	79 55	80 55	84 65	78 65	81 63	81 57	83 60	81 59	83 58	83 62	83 61	73 58	79 58	80 58	81 58	78.6 59.6
NAALEHU 14	MAX	80 68	77 66	80 67	80 67	80 62	80 62	78 63	78 67	78 67	81 69	81 69	88 68	88 68	84 70	87 68	79 65	80 64	80 64	80 66	83 66	81 70	81 68	81 70	81 69	81 69	81 68	83 68	77 67	81 69	82 68	81 70	81.0
DDKALA 223	MAX MIN	79 66	78 66	8 O 6 5	77 64	81 65	76 66	80 66	81 66	80 67	79 68	81 69	85 70	76 68	79 68	78 65	81 66	79 64	81 68	80 65	78 63	81 69	84 71	85 73	81 75		81 70	83 70	82 68	82 69	82 69	82 69	80.5 67.5
OPIHIHALE 2 24.1	MAX MIN	79 59	78 59	77 58	79 58	81 58	78 58	76 58	76 64	82 65	85 64	81 66	84 66	78 65	84 65	80 60	78 60	81 60	80 61	80 63	8 2 6 8	83 62	84 63	82 61	83 60	82 62	79 61	77 61	82 64	80 65	77 62	80 62	80.3
PAHALA 21	MAX	79 61	77 62	80 61	78 61	79 56	78 61	76 61	78 61	80 64	80 66	80 67	83 73	79 68	84 68	79 68	79 64	79 62	8 2 6 0	84 66	82 69	80 67	81 64	8 <b>2</b> 67	81	82 64	84 66	80 65	78 62	80 63	8 0 6 3	79 63	80.1 64.2
UPDLU PDINT USCG 159.2	MAX MIN	79 69	81 68	82 65	82 69	81 67	81 66	82 68	8 <b>2</b> 67	84 70	83 69	83 68	82 74	82 72	82 71	82 70	86 69	85 70	86 70	86 69	84 69	84 72	84 70	85 69	85 71		86 70	86 70	86 70	86 72	87 73	87 71	83.8 69.6

# EVAPORATION AND WIND

Stalion																Day	Oi M	onth															lal g.
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
15LANO OF KAUAI																																	
LIHUE W8 AIRPORT	EVAP WIND MAX MIN	169	168	195	185 85	183	153	108	58 81	61	50 85	69	71 85	110	119	124	113 87	101	87 89	117	140	140	118	119 90	126 91	106	103	108	120	102		94	3581
1SLAND OF DAHU																																	
HONDLULU 08SERV 702.2	EVAP W1ND MAX M1N		92	54	46 90	36 90	32	25 91	20 91	18	24 82	28	16 99	17	23 90		20	33 92	10 84	23	28 97	36 95	35 96	97	24 98	44	29 96	28	34 96	33 95		22 96	7.33 901 93.2 69.2
* * * 1SLAND OF HAWA11																																	
H1LO W8 AIRPORT	EVAP W1ND MAX M1N		36	44	68 88	63 89	51 89	54 84	50 85	111	49 77	47 90	90 87	75 88	77 84	92 90	72 90	7.5	79 92	58 88	53 92	73 91	85 88	88 89	105 88	104 91	72 92	50 81	81 91	9 1 9 2	86 91	64	7.09 2155 87.8 66.8

,	4 .	Ы	DE	N C	OBSERVATIO		11(1)	NO.		<b>∓</b>	DE	JDE	NO		E Al	ND	
STATION 2	ON AZURICE NOISISIS	DRAINAGE	LONGITUDE	ELEVATION	TABLES	OBSERVER	STATION	INDEX N	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	EVAP.		OBSERVER
ANAHOLA 11 A DEPOSE ANAHOLA A DEPOSE ANAHOLA A DEPOSE ANAHOLA A DEPOSE ANAHOLA A DEPOSE ANAHOLA A DEPOSE ANAHOLA A DEPOSE ANAHOLA A DEPOSE	140 02 KOLOA 145 01 KAWAIHAU 140 02 KOLOA 156 02 KOLOA 156 02 KAWAIHAU 170 02 KOLOA 35 01 KAWAIHAU 38 02 LIMUE	Z 21 57 I 22 09 2 21 56 2 21 55 2 22 06 2 21 54 I 22 07 7 21 58 1 22 05	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28	1610 116 720 440 350 163 253 490 1218	7 A C C C C C C C C C C C C C C C C C C	WC BRYDE SUGAR CO. LINUE PLANTATION CO MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD LINUE PLANTATION MC BRYDE SUG CO LTD LINUE PLIN CO LTD GROVE FARM CO LTD LINUE PLIN CO LTD	KAUYALAPAU HARBOR 658 J LANAI CITY 672 LANAIHALE 664 J MAHANA 694 MALAUZA 676 J WALAKEAFUA 685 J ISLAND OF MAUI	3461 0 528 0 5301 0 570 0 601 0	I LAMAINA I LAMAINA I LAMAINA I LAMAINA I LAMAINA	1 1 1 1 1 1	20 50 11 20 49 11 20 53 11 20 46 11 20 47 11	57 00 56 55 56 53 56 55 56 55 56 55	1640 30 1620 3370 1430 1135 2040	7 A 7 H M W	A) A) I) O	200	DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY
HUMIPO 945  LITE UGA INTAK   1 5   22  INTAKE HAINIHA PC 1 86A 22  KALIHIMAI PFS 11VI A 20  KANALDHUUMIU 1 1075   33  KAPAR AR PE ERVOIR 1397 A 31  A 14   1117 A 33	074 01 HANALET 199 03 HAIMEA 10% 01 KAWAIHOU 159 01 KAWAIHAU 082 01 KAWAIHAU	2 22 02 1 22 09 1 27 11 3 22 08 1 22 08	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43	800 1070 670 400 3600 800 175 9	8 A 7 A WII 7 A 8 A 7 A 7 A 8 A 6 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7 A 7	KEKAHA SUGAR CO LTO LIHUE PLIN CO LTD MC BRYDE SUG CO LTD KILAUEA SUG PLIN CO KANALOHULUHULU R. S. LIHUE PLANIATION LIHUE PLIN CO LTD LIHUE PLIN CO LTD KEYAHA SUGAP CO LTD KILAUEA SUGAP TO LTO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	FIELD 46 474 HAELANU 477 HALLEAKALA B E S 434 HALEAKALA RANCH 432 HALEAKALA RANCH 432 HALEAKALA RS 338 HALEAKALA SUMMIT 338.4 HALEHAKU 492.2 HALIHAHLE 423 HAMAFUAPOKO 485	079 0 099 0 100 0 101 0 101 0 108 0	LAHAINA I MAKAWAO I MAKAWAO I MAKAWAO I MAKAWAO I MAKAWAO I MAKAWAO I MAKAWAO I MAKAWAO I MAKAWAO	1 1 1 1 1 1	20 59 11 20 57 11 20 51 11 20 50 11 20 46 11 20 43 11 20 55 11 20 52 11 20 52 11		2060 1050 2980 2100 185 703 9960 690 1070 320		A A A A A A		ULUPALANUA RANCH MAUI PINEAPPLE COMPANY U OF HAWAII EXP 57A HALEARALA RANCH CO HALEARALA RANCH CO HALEARALA NAT PARK U OF MICH MT HKALA OBSY PHIL SCOTI MAUI PINEAPPLE CO- HAWAIIAN COM + SUG CO
* LAJEA PCINT   33   44   K!TANC   737-   44   KOL7    33   47   KOL7    33   47   KOL7    30   47   KOL7    47   KOL7	68 01 HANALE1 557 03 WAIMFA 335 03 WAIMFA 757 02 KOLOA 757 02 KOLOA 758 01 KAWAIHAU 750 02 KOLOA 750 02 KOLOA 750 02 KOLOA 750 02 KOLOA	1, 22 14 3 22 02 3 22 04	159 24 159 41 159 46 159 28 159 29 159 23 159 23 159 23	180 2150 36 240 640 737 100 375 207	8A 8A C C 8A 7A 6A 7A C TA TA TA TA TA TA TA TA TA TA TA TA TA	U S COAST GUARD KEYAMA SUGAR CO. KEXAMA SUGAR CO. TO ROVE FARM CO LTD GROVE FARM CO LTD GROVE FARM CO LTD GROVE SUG CO LTD HAMAIIAN SUGAR RA LASM LINUE PLTN CO LTD J U S WEATHER BUREAU	HANA 374 HANA AIRPOPT 355 HANAHULI 281 HOLUA CASIN 259,5 HONGOHAU 480 HONGOHAU 480 HONGOHAU 493 HONGUA FLD 49 494 HONGMARU GULCH 341 IAO NECUE 381-2 AAANAPALI AIRPUPT	114: 0 1552: 0 1882: 0 1887: 0 1914: 0 1935: 0 2208: 0 2307: 0	1 HANA I HANA MAKAWAO LAHAINA LAHAINA LAHAINA I MAKAWAO 3 WAILUKU 4 LAHAINA	and Labour	20 48 1 1 20 41 1 20 45 1 20 58 1 21 00 1 21 01 1 20 53 1 20 56 1 20 5		120 61 325 6930 87 135 125 628 110		A 10 10 A	c	HADRY HASGAWA HAWAINAN AIRLINES KOALI RANCH HALEAKALA NATL PAPK RGS MANI PINEAPPLE CO HAUI PINEAPPLE C
MARAMELIA POINT 94(+1 7)  MARAMELI 905 0  MANA 1026 0  MANA 1026 0  MANA 1001 0  MOUTHN UPR CROSS 1080 0  MOUTHN UPR CROS	18% 02, KOLOA 18% 03 WAIMEA 188 03 WAIMEA 183 01 WAIMEA 183 01 WAIMEA 184 02 WAIMEA 184 02 LIMUE	2 21 52 3 21 55 3 22 02 2 21 55 3 22 07 1 1 22 11	159 27 159 38 159 46 159 28 159 36 159 30 159 44 159 28	52 140 11 300 3500 330 5148	8A 8A 7A 9A 9A 6A 6A 6A 6A	U S COAST GUARD OLOKELE SUGAR CO KEXAMA SUGAR CO LTD GROVE FARM COMPANY U S GEO SURVEY LS GEO SURVEY KEXAMA SUGAR CO LTD LIHUE PLTN CO LTD LIHUE PLTN CO LTD	KAHAKULOH MAUKA 482.3 KAHOMA INTAKE 374 KAHULUI NG AP 398 KAILIILI 436 KAILUAL 446 KAUAULAI NITAKE 375 KAUPO PANCH HOUSE 259 KEAHUA 410 KEANAR 346 KEAMAKAPU BEACH 260.2	2572 0 2630 0 2679 0 3433 0 3576 0 3910 0 4091 0 4193 0	G LAHAINA 3 WATLUKU 1 MAKAWAO 1 MAKAWAO 4 LAHAINA 2 HANA 3 MAKAWAO 1 HANA 2 MAKAWAO	3 1 4 2 3 1 2	20 54 1 20 54 1 20 54 1 20 54 1 20 54 1 20 53 1 20 39 1 20 52 1 20 52 1 20 52 1 20 42 1	56 33 56 38 56 26 56 16 56 13 56 38 56 08 56 23 56 10 56 27	2520 700 1585 1020 480 980 20	8	D A A A A A	C J	EDWARD CHANG PIONEEP MILL CO LTD U S MEATHER BUREAU E MAUI IRR CO LTD E MAUI IRR CO LTD FIONEEP MILL CO LTD KAUPO RANCH HAWAIIAN COM + SUG CO E MAUI IRR CO LTD L COPELL HAWAIIAN COM + SUG CO
PH MAINIMA III5 PPINCEVILLE PANCH III7 81 PJEMU RIDGE 1046 82 PUHI 1013 A 8 SISERVIP 6 1004 A 8 SIRBLE CAMP 1055.1 AAHIAMA MOJNTAIN 909 A MAINIMA LOWER 1054 88 AAIMA LOWER 1054 88	155 01 HANALEI 165 01 HANALEI 005 03 WAIMEA 117 02 LIHUE 173 02 LIHUE 194 02 LIHUE 141 02 KOLOA 144 02 KOLOA 158 02 LIHUE	1, 22 12 1, 22 13 3, 22 01 2 21 58 2 21 57 2 22 04 2 21 54 2 21 58	159 34 159 29 159 42 159 24 159 27 159 37 159 34 159 37 159 27	101 295 1660 329 420 740 215 2100 565 780	6A C C C C C C C C C C C C C C C C C C C	HC BPYDE SUG CO LTD PRINCEVILLE RANCH KEYAHA SUGAR CO LTD GROWE FARM CO LTD GROWE FARM CO LTD LINUE PLANTATION CO- LINUE PLANTATION CO- WE BYDE SUG CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD LINUE PLIN CO LTD	KIHEI 311 KIPANULU 258 KUKUI 380 FULA HEIGHTS 323-2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO WILLAGE 372 LUPI UPPEP 442 MAHINAHINA 466	5177 0 5404 0 5408 0 5665 0 5715 0	I HANA 4 LAHAINA 2 MAKAWAO 2 MAKAWAO 4 LAHAINA 4 LAHAINA 1 HAKAWAO 4 LAHAINA	1 4 2 2 4 4 4	20 39 1 20 54 1 20 47 1 20 42 1 20 53 1 20 51 1 20 51 1 20 53 1 20 57 1	56 27 56 04 56 35 56 19 56 22 56 41 56 37 56 39 56 40	90 260 5788 2520 3004 45 1280 220 1240 715	7 6 7 7 7 7 7 VA 7	A	0	KIPAHULU CATTLE COMPANY MAUI RINEAPPLE CO KENNETH WILLEY KULA SANATOPIUM PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEEP MILL CO LTD PIONEEP MILL CO LTD
#A]A#A 943 92 #21UA KA[ 1165   49 94	CAJ OJ WAIMEA 607 OZ LIHUE 129 OJ WAIMEA 155 OZ KOLOA (11) OJ EWA 111 OJ EWA	21 59 2 22 02 3 21 57 2 21 54	159 43 159 21 159 41 159 31	10 50 20 210 455 20 680	8 A 7 A 6 4 7 A 6 4 7 A 6 4	KEKAHA SUGAR CO LTD LIHUE PLANTATION WAJMEA SUG MILL CO MC BRYNE SUG CO LTO WAIMHOLE WIR CO LTD BOADD OF WIR SUDDIY	MOKUPEA 475 NAKALELE -FLD 60-497 OLINDA 332 OLOWALU 296 OLOWALU 301 PAAKEA 350 PAIA 406 PANILEIHULU 259+2 PAUWELA 490 POHAKEA BPIDGE 307+2	7040 0 7059 0 7066 0 7194 0 7566 0 7674 0 7857 0	I MAKAWAO 4 LAHAINA 4 LAHAINA 1 HANA 1 WAILUKU 2 HANA 1 MAKAWAO 3 WAILUKU	1 1 1	21 02 1 20 48 1 20 49 1 20 51 1 20 55 1 20 65 1 20 41 1 20 55 1 20 49 1	56 37 56 36 56 17 56 38 56 36 56 07 56 23 56 08 56 19 56 31	1290 340 4127 7 800 1260 170 3570 485 167	6 6 W 7 6	P O A A		MAUI PINEAPPLE COMMANY MAUL ON MEAPPLE COMPANY MAUL CO WATEP DEPT PIONEEP MILL CO. PIONEEP MILL CO LTD E MAUI IPP CO LTO HAMAILAN COM + SUG CO KAURO PANCH CO. MASEROT PINEAPPLE CO. WAILUFU SUGAR CO
DHURCH COLLEGE LATE  TOCHNUT ISLAND 84%;  DOWSETT HISHLDS TBD.8 00  FAR PLANTATION 741  GALAWA SHART 771.4/  HELEMANIO INTAKE 881 A.1/  HOF JOA 724.2  HONDLULU GASERY 702.4/  HONDLULU GASERY 703.8 14  HONDLULU BEFC 703.8 14		1 21 26 2 21 21 3 21 21 2 21 23 5 21 33 3 21 24	158 04 157 56 157 47 157 50 158 02 157 54 158 00 158 06 158 00 157 55 157 52	20 13 565 42 170 1274 2220	9A 7A C C VAR C C VAR C C VAR C C C D M1D C C D M1D C C D M1D C C D M1D C C D M1D C C C C C C C C C C C C C C C C C C C	DEL MONTE COPPOPATION PIPHAPP (CABUN U OF H MARINE LAB J. L. BANNING EMA PLANTATION CO BOAPO OF MATEP SUPPLY WAIALUA AGP CO LITT H. V. VON HOLT U S COAST + GEODETIC JU S WEATHEP BUPEAU ESSA-WEATHEP BUREAU	POLIPOLI SPPINGS 267.2 PUDNOKAMOP 2 343 PUU KURUI MAKAI 472 PUUNENE 396 PUU PARI 352 SPRECKELSVILLE 400.2 THIN SATES 261.3 UKULELE 333 UKULELE 333 UKUYEHAME 301 ULUPALAKUA RANCH 250	8070 0 8336 0 8444 0 8543 0 8553 0 8688 0 8742 0 8744 0 8750 0	I HANA 4 LAHAINA 3 WAILUKU 1 HANA 3 WAILUKU 2 MAKAWAO 1 MAKAWAO 4 LAHAINA	1000	20 50 1 20 55 1 20 53 1 20 46 1 20 54 1 20 46 1	56 20 56 13 56 38 56 27 56 23 56 23 56 23 56 15 56 35 56 24	6150 2980 2500 60 2160 85 1310 5230 75 1900	8 VA	10 10	-	STATE DIV OF FORESTPY E MAUI IPR CO LTD PIONEEP MILL CO LTD HAWAIIAN COM + SIIS CO FART MAUI IRPIGATION CO HAWAIIAN COM + SUS CO KAONOULU RANCH HALEAKALA PANCH CO PIONEEP MILL CO LTD ULUPALAKUA PCH CO LTO
H 9 P A EXP 5TA 707 21 FABLAKET 774 6 2 FAHANA 881 A HUKU 912 FAHUKU 912 FAHUKU 912 FAHUKU 913 FAHUKU 913 FAHUKU 914 FAHUKU 914 FAHUKU 915 FAHUKU 915 FAHUKU 917 FAHU	A PONOLULU A CA	2 21 18	157 50 157 43 157 54 157 57 157 45 157 50 157 41	50 10 800 25 10 910 1380 225 365	84 84 C MIO C	H S P A EXP STATION MRS. MILLIE ZAPATA MAIAHOLE WTR CO LTO KAHKUN PLIN CO KAILUA FIPE STATION BOARD OF WTR SUPPLY HAWAII NATIONAL SUARD STATE HOSPITAL KANEOHE RANCH CO	WANIKULI 364 WAIHEHU CAMP 434 WAIHEE VALLEY 4R2 WAIKAMOI 449 WAIKAMOI DAM 336 WAIKAPU 390 WAILUA IKI 348 WAILUKU 392 WAIOPAI RANCH 256	9332 0 9335 0 9376 0 9460 0	4 LAHAINA 3 WAILUKU 1 HANA 1 MAKAWAO 3 WAILUKU 1 HANA 3 WAILUKU 2 HANA	1.5	20 55   20 57 1 20 52   20 49 1 20 52   20 48 1	56 40 56 31 56 32 56 12 56 14 56 31 56 30 56 12	580 320 300 1200 4320 470 2630 200 220	6 6 W VA 6	Α		PIONEEP MILL CO LTO WAILUKU SUGAP CO WAILUKU SUGAP CO WAILUKU SUGAP CO WAILUKU SUGAP CO WAILUKU SUGAP CO EAST MAUI IPPICATION CO EAST MAUI IPPICATION CO HALEURY SUGAP CO HALEURY SUGAP CO HALEURY SUGAP CO
ABALAMA 773 A 32 CAMAI HAPAI BB A 32 LAMAI IKI INTAYE BB A2A 37 KAMELA MAUKA 906-3 FEMO CAMP B 855 A 4 LUALUALEI BOG 56 LUALUALEI WIR TUNNEL A 56	134 05 WATALUA	2 21 21 5 21 35 5 21 34 1 21 40 5 21 33 5 21 30 4 21 26	157 54 157 52 158 11 157 59 158 00 158 05 157 58 158 08 158 08 158 08 157 49 157 42	1500	7A 7: C	GEORGE H. SWIFT KAMEHAMEHA SCHOOLS WAIJALUA AGP CO LTO WAIJALUA AGP CO LTO HAWAII WAITO WAL GUPO C & FORFICEP HEOG USN AMMUNITION GEP U S NAVY WILNOR LUM	1SLANO OF HAWATI AHUA UM1 75 AHUNI 182.1 EAST HOMOKANE 183+2 HATNA 214 HAKALAU 142 HALERAUHAU 52 HALERULA 117 HALEROHAKU 111 HAKAII VOLNS NP HQ 54	0190 0 0450 0 0840 0 0905 0 1033 0 1060 0	2 KAU	1 1 1 - 2	20 10 1 20 07 1 20 06 1 19 54 1 19 24 1 19 56 1 19 46 1 19 26 1	55 47 55 43 55 43 55 28 55 17 55 24 55 28 55 16	5220 1870 4240 461 105 3648 5770 9220 3971	77 77 77 MM MM MM MM MM MM MM MM MM MM M	10 00 00 00 00 00	-	GREENWELL RANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTD HONOKAA SUGAP CO PEPEKEO SUGAP CO, HAWAII NAT PARK KUKAIAU PANCH CO STATE DIV, OF PAPKS HAWAII NAT PAPK
MARAHA KALI 790 A 5: 45: 45: 45: 45: 45: 45: 45: 45: 45:	166) 04 WAIANAE 1881 04 WAIANAE 1800 02 HONOLULU 22 02 HONOLULU 300 02 HONOLULU 1722 07 KOOLAUPOKO 195) 02 HONOLULU 1853 04 WAIANAE	4 21 28 4 21 29 2 21 19 2 21 19 2 21 20 1 21 21 2 21 21 4 21 31 2 21 21	158 13 158 12 157 39 157 49 157 48 157 46 157 54	40 25 160 538 220 650 410 20 402 104	1 8 C 8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9	LUNALILO HOME  CAPITAL INVEST CO  CAPITAL INVEST CO  (APITAL INVEST CO  MRS., JOHN H.BEZAUMONT  FOAPO OF WIP SUPPLY  FORFAL AVIATION ADM.  BOARO OF WIR SUPPLY  BOAPO OF WIR SUPPLY  BOAPO OF WIR SUPPLY	HAW[ 168   HILO WB AIPPOPT 87   HOLUALOA 70   HOLUALOA 8EACH 68   HONAUNAU 27   HONOH NA 137   HONOKANE 181-1   HONOHU MAUFA 138   HONOHU MAUFA 138   HONOHU MAUFA 138   HONOHU MAUFA 14   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHU MAUFA 15   HONOHUM	195 0 1562 0 166 0 1701 0 186 0 196 0 2047 0	2 S HILO 4 N KONA 4 N KONA 5 KONA 2 N HILO 1 N KOHALA 2 S HILO 4 N KONA N KONA	2 1 2	19 43 1 19 38 1 10 37 1 19 27 1 19 56 1 20 09 1	55 53 55 69 55 64 55 69 55 53	3220 14 1089 300 800 1100 6250 8190	MI: MI: MI 7 7 7 7 7 7 7 8 M M	A A A A A O	0C J	KOMALA SUMAR CO  U S WEATHEP BUPEAU STATE DIV OF FORESTRY VARIOUS PANCH HANDS MRS MALAF N HUA PEPEFRED SUGAP COMPANY KOMALA DITCH CO LTO PEPEFRED GUGAR CO. STATE DIV OF FORESTRY STATE DIV OF FORESTRY
OPAPULA 870 -ALIOV VALLY 718 77 -ALIOV VALLY 718 77 -ALIOV VALLY 718 77 -ALIOV VALLY 718 77 -ALIOV VALLY 718 77 -PELOCK RIAD 724-4 AS 1014 -VALL U 886 78 -VALHE BL. CRATEP 739 AS 1 -YALHE BL. CRATEP 738 AS 1 -YALHE BL. CRATEP 738 AS 1 -YALHE BL. CRATEP 738 AS 1 -YALHE BL. CRATEP 738 AS 1	1.50' 05 MATALUA 1.64 02 HONOLULU 133 03 EWA 133 03 EWA 17.72 05 MANHAWA 17.90 07 MOOLAULOA 18.10 07 MOOLAULOA 18.10 07 MOOLAULOA 18.10 07 MOOLAULOA	2 21 20 2 21 21 3 21 25 2 21 17 5 21 28 1 21 35 2 21 19	158 02 157 46 157 48 157 58 157 43 158 01 157 54 157 51 157 47 157 49	1060 995 1540 240 6 T00 40 360 488 2000	7A 7 C MI C MI C MI C MI C MI C MI C MI C	BOAPO OF WIR SUPPLY WAIALOU ASP CO LTO BOAPO OF WIR SUPPLY JAMES MOMENO MRS ALFED FRANCO- JP. PINEAPPLE RESEARCH INST KAHUKU PLIN CO NAT MEM CEMETEPY PEV R CULLINAN BOAPO OF WATER SUPPLY	KAALA İKİ 12 KAAMALOD 29 KAHİAMA1 3-4 KAİNALIU 73-2 KALAPANA NO 1 67-8 KAMAOA NO 2 5 KAMJELA 192-2 KAMJELA AIPPOPT 191 KAPAPALA RANCH 35	224 0 232 0 2512 0 2751 0 289 0	N KONA KAU N RONA S HILO KAU I S KOHALA S KOHALA	2	19 08 1 19 30 1 19 08 1 19 32 1 19 32 1 19 02 1 19 02 1 20 01 1	55 34 55 55 46 55 66 55 67 55 40 55 40 55 40	1340 1330 3700 150 11 1375 2670 2665 2140		A R		HUTCHINSON SUGAP CO CAPTAIN CONK COFFEE CO. RUSSELL P. SWITH KONE EXPEDITION STA HAWAITAN AWKEN TO PARKET PANCH HAWAITAN AIPLINES HAWAITAN BANCH CO. INC. BOORD OF WATER SUPPLIES
TANTAL 15 2 TBO.5  JNIV 7 5 HAWAII 713 A 86 ANTIAWA AM BO.3 A 84 ANTIAWA AM BO.3 A 84 ANTIAWA BO.7 ANTIAWA TO.7 ANTIAWA TO.7 ANTIAWA TO.7 ANTIAWA BO	138 02 HONOLULU 115 12 HONOLULU 145 03 WAHIAWA 145 03 KOOLAUPOKO 145 02 HONOLULU 145 04 WAIANAE 130 04 WAIANAE 150 04 WAIANAE 150 04 WAIANAE	2 21 20 2 21 18 5 21 30 1 21 28 2 21 17 5 21 35 4 21 27	157 50 157 49 158 03 157 53 157 47 158 07 158 11 158 09 157 56 157 53	1325 7- 854 745 41 32 20 1575 800	7A 8A 7A 8A WI	P. E. WHITE OEPT OF GEOSCIENCE WAIALUA AGP CO LTO MAIAHOLE WITE CO LTO SPENCEP TINKER WAIALUA AGP CO LTO CAPITAL INVEST CO CAPITAL INVEST CO WAIAHOLE WITE CO LTD	KAUMANA 88.1 KAWAINUI LOWEP 193 KEAAU 92 KEAIWA CAMP 22.1 KEALAKEVUA 26.2 KEANAKOLU CAMP 124.2 KEHENA RESERVOIP 176.1/ KIOLAKAA A + F 6	3510 0 3770 0 3872 0 3925 0 3977 0 4098 0 4245 0	S HILO 1 HAMAKUA PUNA 3 KAU 4 S KONA 2 HAMAKUA I N KOHALA 1 N KOHALA 3 KAU	2 1 2	19 41 19 20 05 119 19 38 119 19 14 119 10 30 119 19 55 119	55 09 55 39 55 02 55 29 55 29 55 45 55 45	1123 1080 280 1700 1450 5280 3840 2520	8 8 8 8 8 8 8 7	A	11000	SHIRED MASUYA HONDKAA SUGAP CO PUNA SUGAP CO HAVALIAN AREH. COMPANY MISS AMY GREENVELL STATE DIV. OF FORESTRY KOHALA DITCH CO. LTD CLOSED 4/30/68 STATE DIV. OF FORESTRY
##HINET 11-2 723-2 A 72 ##HINET 11-2 723-2 A 72 ##HINET 11-2 A 72	197; 02 HONGLULU 195; 02 HONGLULU 195; 02 HONGLULU 195; 03 HONGLULU 121 01 FOOLAUPOKO 138 03 EWA 138 03 EWA 140 02 HONGLULU	2 2 1 16 2 2 1 18 2 2 1 28 1 21 21 5 21 38 3 21 23 2 21 18	157 49 157 45 157 45 157 44 158 04 158 01 157 47	170 180 60 420 59 1100	MT AA WI 8A 7A BA MID	WAIAHOLE WTR CO LTO HONGULU ZOO BOARD OF WTR SUPPLY WAILUPS VALLEY SCHOOL ST DIV WTR + LAND DEV WAIALUR ASP CO LTO BOARD OF WTP SUPPLY BOARD OF WTP SUPPLY	KIPA 89-2  KOHALA 179-1 KOHALA MAULILI 176 KOHALA MISSION 175-1 KOIANC LONEP 196 KONA AIPPORT 68-3 KONA VILLAGE 03-8 KUKAJAU 222 KUKUHAELE HIL 199 KUKJHAFLE MILL 206	4670 0 4675 0 4680 0 4765 0 4765 0 4815 0 4928 0	I HAMAKUA H KONA N KONA I HAMAKUA I HAMAKUA I HAMAKUA	1 1 1 1 1	20 14 19 20 13 19 20 14 19 20 05 19 19 39 19 19 52 19 20 02 19 20 07 19		1490 309 960 537 720 15 15 840 980 300	7 A 7	1	c	MAUNA YEA SUGAP CO. FOHALA SUGAP CO K. BUGAP CO K. LYMAN BOND HONOKAA SUGAP CO HAWAITAN AIPLINES FONA VILLAGE RESOPT HTL HAMAKUA MILL CO HONOKAA SUGAP CO HONOKAA SUGAP CO
AAPAL MACKA NO.2. A 30 AAPAL MACKA NO.2. A 30 AAPAL MACKA NO.2. A 30 AAPAL MACKA NO.2. A 30 AAPAL MACKA NO.2. A 40 AAPAL MACKA NO.2. A 40 AAPAL MACKA NO.2. A 40 AAPAL MACKA NO.2. A 40 AAPAL MACKA NO.2. A 40 AAPAL MACKA NO.2. A 40 APAL MACKA N	MULDIAN	21 04   21 06   21 06   21 06   21 12   22 09   21 04   21 07   21 09   21 09		301 60' 12 70 560 878 20 1015 450' 700	8A C C C 7A C C 7A C C C C C C C C C C C	KALAUPAPA SETTLEMENT W. J. CARSIEN MOLOXAI RANCH LTD MOLOXAI RANCH LTD MOLOXAI RANCH. LTO. OFL MONTE CORPORATION LIBBY MCNEILL > LIBBY ALOHA AIRLINES PUUDHOKU RANCH	KULANI CAMP 70  KULANI MAUKA 76  KULANI SCHOOL SITE 78  LALAMILO FLD OFF 191.1  LANIHAU 68.2  LAVA TREE PARK 66.1  MAUMA KEA BEACH 98  MAUMA LOA SLODE OBS	5011 0 5018 0 5021 0 526 0 533 0 5460 0 613 0 6180 0 6196 0	S HILO S N HILO S S HILO I S KOHALA N KONA 2 PUNA	2 5 2 1 4 2 3	19 33 11 19 35 11 19 35 11 20 01 11 19 40 11 19 29 11 19 07 11	55 18 55 27 55 20 55 41 55 56 55 56 55 50 55 50 55 58	5170 8300 5735 2615 153 650 1760	8A 8 W W W 8	A A A A D	x x	ST DEPT OF SOCIAL SEP  U.S. WEATHEP SUPEAU ST DEPT OF SOCIAL SEP STATE DEPT OF L + N PES KONA EXPERIMENT STATION STATE OIL OF PARKS STATE OIL SEP AUNA XFA BEACH MOTEL U.S. WEATHER SUREAU VONA EXPERIMENT STA
A 77	VI VOTA	I 21 08	17A 55	3550	TW/	MOLOKA1 RANCH	MIDDLE HOLUALOA 68.1 MIDDLE PEN 147.1	6270 0	1 N KOHALA	1	20 06 1	55 50	1380	VA			KANUA PANCH

CTATION	K NO.	NOIS		AGE 1	ATITUDE	LONGITUDE	ATION		SERV. TIME .	ES	OBSERVER	STATION	X NO.	SION	OISTRICT	AGE ‡	TUDE	LONGITUDE	ATION					OBSERVER
STATION	INDEX	DIVIS	District	DRAIN	LATI	LONG	ELEV!	TEMP.	PRECIP.	SPECIAL SPECIAL	OBSERVER	BIATION .	INDEX	DIVISI		DRAIN	LAT	LONG	ELEV	TEMP.	PRECIP	EVAP.	SPECIAL	
NAPOOPOO 28 NANULU FOREST 38.6 NIULII 179 OOKALA 223 OPIMHALE 2 2241 ORCHID LAND EST 91.5 PAAULIO 221 PAAULIO 221 PAHOA 65 PARO 37 PARO  4 658 4 665 713 716 716 720 731 745 771 771 771 771 771 771 771 771 771 77	2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 KAU 2 PUNA 3 KAU 4 S KONA 2 PUNA 4 S KONA 2 PUNA 1 N KOHALA 2 N HILO 4 S KONA 2 PUNA 2 PUNA 3 KAU 2 PUNA 3 KAU 2 F HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO 2 S HILO	4	19 33 19 04 19 28 2 19 19 20 14 19 16 2 19 34 1 20 05 1 20 03 3 19 12 2 19 34 2 2 19 47 2 19 47 2 19 44 2 19 44 2 19 44 2 19 44 2 19 44	155 08 155 05 155 10	60 153 67 39 140 7 43 127 44 41 80 87 67 500 20 127 10 173 651	0 68 88 88 77 77 77 77 9 9 9 9 9 9 9 9 9 9	7A VAR 7A	c	HAVALIAN PANCH CO PURA SUGAP CO PURA SUGAP CO PURA SUGAP CO PURA SUGAP CO PURA SUGAP CO PURA SUGAP CO PURA SUGAP CO PURA SUGAP CO PURS CLEUDAD	PUU LAAU 102.1	84 84 85 85 85 85 86 86 86 87 88 90 93	52 0 60 0 15 0 48 0 55 0 75 0 79 0 80 0 30 0 25 0	1 HAMAKUA 5 HAMAKUA 4 N KONAA 1 N KOHALA 1 N KOHALA 2 N KOHALA 2 S HILO 3 KAU 1 HAMAKUA 1 N KOHALA 2 S HILO 1 N KOHALA	1 1 2 2	19 50 19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40 20 08	155 24 155 36 155 49 155 26 155 57 155 51 155 51 155 41 155 41 155 41 155 64 155 68		8,4	Mr. 7. 6.0. 7. 8. 7 7.			KUKATAU RANCH CO STATE DIV OF FISH-CAM GREENWELL BANCH KUDARAU PANCH CU KUDARAU PANCH CU KUDARAU PANCH CU KUDARAU PANCH CU KUDARAU PANCH IN BORDO OF MES BORDO OF MES BORDO OF MES KUPELY KUDARAU PANCH CO U S CORT (MADO XAHUA BANCH CLOSED A/30/68	
												KAANAPALI AIPPOPT ISLAND OF HAWAII KONA VILLAGE 93.8			4 LAHAINA 4 N XONA	4		156 42	1	9 8/	8 A			AMPAC PROPERTYS  FONA VILLAGE PESOPT HTL

T DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLIOKAI: 1-KOO INTRA-ISLAND DIVISIONS) LAXAI: 1-KOO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN 5-CENTRAL 1-KOOTHEAN 1-2-KOOTHERN 3-SOUTHERN 1-KOOTHEAN 1-TO-THEAN 1-T

#### REFERENCE NOTES

Additional information regarding the climate of Bawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3850. Homolus, Hawaii. or to may Westher Burcay Office near you. Additional precipitation data are contained in "MOUNTY PERCEPTATION DATA HEAVED."

DIMENSIONAL UNITS Unless otherwise indicated, dimensional units used in this bulletin are Temperature in F., precipitation and evaporation in Inches and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME. Data in the "Moothly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station Index shows observation time in local standard time.

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table Lable Max and Win in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-bours ending at time of observation NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Bawaii state key numbers are included following station names in the several tables.

OELAYED OATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates.
- ++ Highest observed one minute windspeed This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown.
- A the letter "A" shown following station mame in "Climitological Data" table, "Daily Precipitation" table, and "Station Indos"; indicates amount carried in the "Ordal" column is for the period free last measurement of a preceding mount through the last measurement of the current auch See "Daily Precipitation" table of this and previous bulletins for dates of measurement. More gages are read only once monthly, measurement made on the first of a month are credited to the last day of the preceding month.
- B Adjusted to a full month
- J "Supplemental Data" table
- One or more days of record missing, if average value is entered, less than 10 days record is missing See "Oaily Temperature" table for detailed daily record.
- R Amounts from recording gage
- T Trace, an amount too small to measure.
- V includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after ralm.
- In Special Column of Station Index indicates Recording Sain Gage Station. Boarly precipitation values are processed for special purposes, and are published later in the "flourly precipitation Data" builetin. If didij as
- MO Gage read once monthly; usually on the last day.
- OC Gage readings at periods varying from a few weeks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset
- VAR Observation time is variable.
- WI Gage read weekiy or irregularly only.
- WM Gage read weekly and last day of month
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

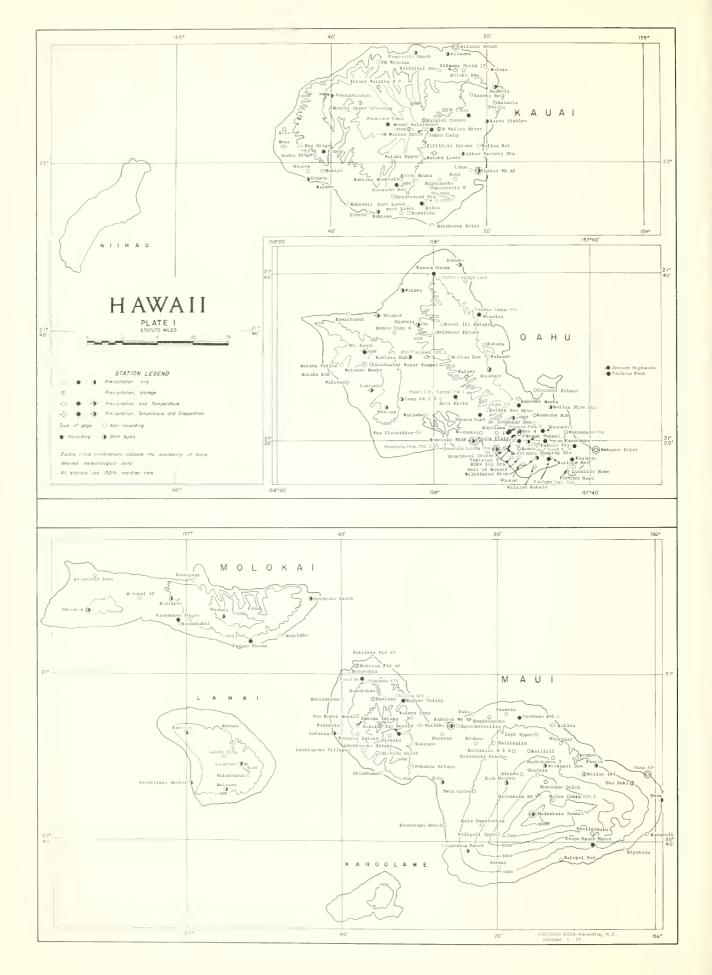
Stations appearing in the tables with no data were either missing or received too late to be included in this issue,

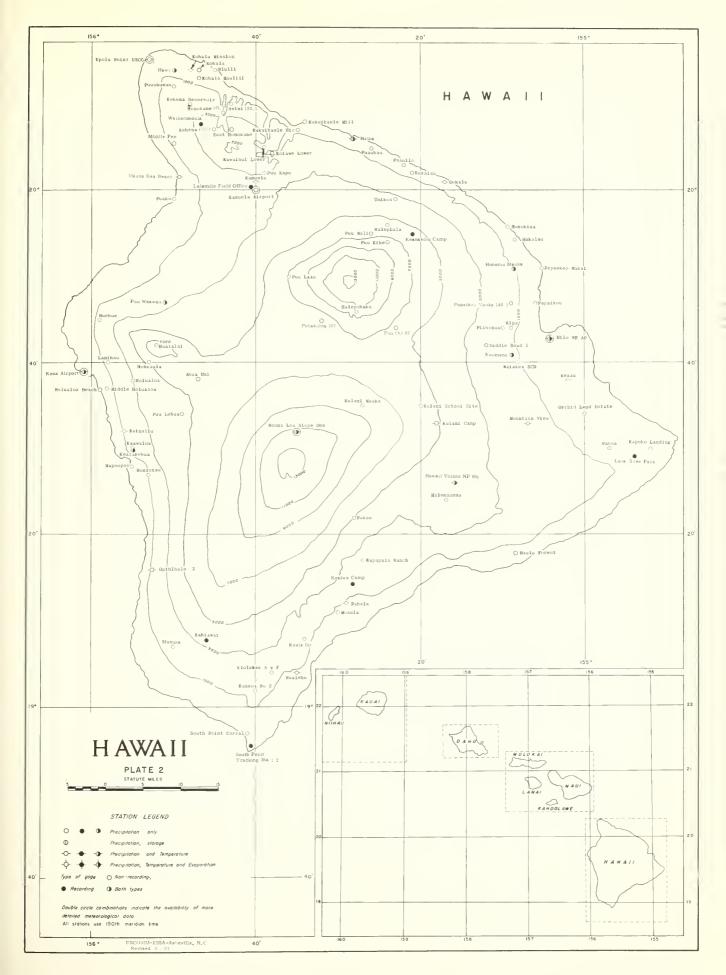
General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, CLIMATOLOGICAL DATA MATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the bistory of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation Bistory" for this State, price 40 cents. Shellar information for regular Weather Dureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Documents at the address shown above.

Subscription Price. 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and mone orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Occuments, Government Printing Office, Washington, D. C. 20402.

USCOMM-ESSA-ASHEVILLE-8/29/68-890









CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE

JUNE 1968

HAWAII

No. 6

# CLIMATOLOGICAL DATA

Proper Series   Proper   Proper Series   Pro						Ter	nper	ature										1	1	Prech	pilation	A	-			
ISLAND OF MADEL    ISLAND OF MADEL   ISLAND OF M												I	lo. of	Day						-	Snov	v. Sleet		No	o. of	Days
INTERIOR OF MALAYAMA AND THE MALAYAMA AN	Statioo		Average Maximum	Average Minimum	Average	Departure From Normal	Highest	Date		Date	Degree Days	v e	10 %	or w	. 1	Total	Departure	From Normal		Date	Total	Max. Depth on Ground	Date	lo l	ö	1.00 or More
RABALDRICHULU LUIC 107   37   4   5   5   5   5   5   5   5   5   5																										
LINUE WAS AP 1020-1 R 8 83-0 172-0 77.0 1.2 84 28-00 1 10 0 0 1.28 -27.0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135	Α														1.01 1.38 2.56			.30	12	.0	0			0	0
MARIENA 930 A B1.3 66.3 73.8 82 25 59 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	LIHUE W8 AP 1020.1 MANA 1026 N WAILUA DITCH 1051	R			77.8 78.3											1.23 .00 9.34	-	.64	.00		.0	0			0	0
SIGNID GRANU   MANNINULU GOSERV 707.2   MANN	WAHIAWA 930 WAIAHI LOWER 1054	Д	81.3	66.3	73.8		83	25+	59	1		0	0	0	0	.68 5.27			.91	30	.0	0		18	0	0
ISSLAND OF CIANUAL  MANDLULUD BSERV 702.2 R A 87.5 73.3 80.4 2.5 89 29 08 2* 0 0 0 0 0 0 0 2.2 - 0 0 17 13 0 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ISLAND				74.6											2.18					.0					
HONDLULU WHEF 703 R 9.15 73.3 80.4 2.5 89.29 80 2+ 0.0 0 0 0 0.2400 1.1 13 .0 0 1 1 0 AMADURA 181 A 93.0 72.0 77.8 1.9 80.4 2.5 89.29 80 2+ 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																										
MARAPUU POINT 724  MARAPAUL POINT 724  MARAPAUL POINT 724	HONOLULU W8FC 703 KAHUKU 912 KANEDHE MAUKA 781		M	М	M							0	0	0	0	.24 .92 1.30	-	.49	.17	27	.0	0		1 4	0 0	0
PUNALUU 884 MATIAND AM 803 A MATIAND AM 903 AM 903 AM	MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870	А	81.3	72,7	77.0	3.1	85	10+	71	16+		0	0	0	0	.28 4.09 2.49	-	3.06	.18	30	.0	0		ī	0	0
MAIRIKI 717.2  A 86.5 73.2 79.9 89 7 65 2+ 0 0 0 0 .43  ISLAND  TOTAL PRODUCTION  ISLAND  TOTAL PRODUCTION  TOTAL PRODUC	PUNALUU 884 WAHIAWA DAM 863 WAIAHOLE 837	A A A														1.84 .55 3.31					.0	0			0	0
Name	WAIKIKI 717.2					1.0										.43			.12	14	.0	0		2	0	0
SLAND OF MOLOKAI	ISLAND				77.8											1.79					.0					
MADURLEHU 542 MAUNALDA 511 A MAUNALD																										
* * * * 1SLAND OF LANA1  LANA1 CITY 672 A 78.8 65.9 72.4 2.3 83 30 62 3 0 0 0 0 .9349 .38 14 .0 0 3 0 15LAND OF MAUI  ** * * * * * ISLAND OF MAUI  ** * * * * * * * * * * * * * * * * *	MAPULEHU 542 MAUNALOA 511		82.7	70.3	76.5		8.5	24+	67	6		0	0	0	0	2.47	-	.28	.55	25 7	.0	0		10	1	0
ISLAND OF LANAL  LANAL CITY 672  A  78.8  65.9  72.4  2.3  83 30  62 3  0 0 0 0 .9349  .38 14  .0 0 3 0  ISLAND  **  *  *  *  *  *  *  *  *  *  *  *	ISLAND				76.5											.72					.0					
** * * * * * * * * * * * * * * * * * *																										
# * * * * * * * * * * * * * * * * * * *	LANA1 CITY 672	А	78.8	65.9	72.4	2.3	83	30	62	3		0	0	0	0	.93	-	.49	. 38	14	.0	0		3	0	0
HALEAKALA 8 E S 434 A HALEAKALA 8 E S 434 A HALEAKALA 8 E S 434 A HALEAKALA 8 E S 434 A HALEAKALA 8 E S 434 A HALEAKALA 8 E S 338 674 49.7 58.6 74 24+ 41 26 0 0 0 0 1.18 014 0 0 5 0 0 15 0 0 0 0 0 0 0 0 0 0 0 0 0	1 S L A N O				72.4											.93					.0					
HALEARALA RS 338	* * * ISLANO OF MAUI																									
KATLUA 440	HALEAKALA RS 338 HANA AIRPORT 355 HONOKOHUA 493		84.8	71.2	78.0		89	29	66	2		0	0	0	0	1.18 3.60 .90			.40 .40	14 7 26	.0	0		5 14 3	0	0 0
LAHAINA 361 87.3 69.3 78.3 89 17+ 66 3+ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	KAILUA 446 KEANAE 346 KIPAHULU 258		79.8	67.8	73.8	1.9	82	1	63	3		0	0	0	0	6.27 10.40 4.46	-	1.30 3.37 3.30	.77	18	.0	0		14	4	0
PATA 406 WALLUKU 392 85.6M 72.0M 78.8M 2.4 88 27+ 69 27 0 0 0 1.92 1.58 1.75 11 .0 0 1 1						.9										.00	-	.06	.00		.0	0		0	0	0
136410	PAIA 406 WAlluku 392		l.		78.8M	2.4									- 0	1.92	-	.67	.09		.0				0	0
	ISLAMO				75.0											,					. 0					

### CLIMATOLOGICAL DATA

Continued					111111			_						••						HAWA			1968	8
		T			Te	nper	ature											Preci	pitation					
											1	No. of	Day	s					Sno	w, Sleet		N	o. of l	Days
Station			o Mi	•	ure ormal	_			:	Days	M	ax.	М	in.		ure Iormal	st Day			epth		fore	or More	More
		Average Maximum	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	<b>D</b> едтее	90° or	32° or Below	32° or Below	0° or Below	Total	Departure From Normal	Greatest	Date	Total	Max. Depth on Ground	Date	.10 or More	.50 or h	1.00 or
* * * ISLANO OF HAWAII																								
HAINA 214 HAWAII VULCNS NP HQ 54 HILO W8 AIRPORT 87 HUEHUE 93.1	R A	82.7 69.0 83.9	65.9 55.3 69.2	74.3 62.2 76.6	1.3 .2 2.3	85 73 88	7	53 67	3+ 30+		0 0	0	0	0	3.65 8.73 8.72 2.73	1.73 4.20 1.93 - 1.77	2.46 3.57 1.24	14	.0	0 0 0		4 17 20	2 3 4	1 2 3
KAINALIU 73.2  KAMUELA AIRPORT 191 KEAAU 92 KEALAKEKUA 26.2 KONA AIRPORT 68.3 KUKUIHAELE HIC 199		79.5 74.7 83.9 79.6M 84.0M	55.2 66.3 64.5M 66.1M	72.2 65.0 75.1 72.1M 75.1M	1.4	76 86 82	27+ 7 30+ 28+	48 65 62	19 20+ 4 27+		0 0 0 0	0 0 0	0 0 0 0	0 0 0 0	4.31 .60 d.67 2.37 .85	- 3.64 .81	1.21 .42 1.98 .53 .34 1.05	14 14 6 16	.0	0 0 0 0		9 1 18 7 4 1	4 0 5 2 0 1	0 1 0 0 0 1
KULANI CAMP 79 MAUNA KEA 8EACH 98 PAHALA 21 POHAKULOA 107 PUAKO 95.1	Δ	65.4M 87.9M 81.0	49.3M 71.7M 65.1	57.4M 79.8M 73.1	.9	71 96 84	7 30 30	41 62 62			0 8 0	0	0 0 0	0 0 0	6.84 .14 2.24 .85 .12	.91	2.57 .10 2.01	14	.0	0 0 0 0 0		15 1 2	5 0 1	1 0 1 0
PUU WAAWAA 94.1 UMIKOA 118 UMIKOA 118 WAIAKEA SCO 88.2	Δ														.79 3.56	- 1.33 1.86	3.19	14	• 0	0			1	0
ISLANO				71.2											3.84		1.45	14	.0	0		16	10	5

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 96° ON THE 30TH AT MAUNA KEA BEACH 98, HAWAII

LOWEST TEMPERATURE: 32° ON THE 14TH AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 15.62 INCHES AT HONOMU MAKUKA 138, HAWAII

LEAST TOTAL PRECIPITATION: .00 INCH AT 10 STATIONS

GREATEST ONE-DAY PRECIPITATION: 4.25 INCHES ON THE 14TH AT PAHOA 65, HAWAII

#### HAWAII - JUNE 1968

#### SPECIAL WEATHER SUMMARY

The month was marked by an unseasonable fall of snow and by continued dry weather over much of the State.

What may have been its first June snowfall in 50 years or more occurred during the morning of the 14th on the summit of Haleakala, Maui, elevation 10,023 feet. The snow, which began at 6:20 a.m., fell for about 10 minutes and remained on the ground only briefly.

At higher elevations in Hawaii, summer snow is less uncommon. Thus, this was the eighth snowfall reported in June on Mauna Loa (elevation 13,680 feet) and the sixth on Mauna Kea (elevation 13, 796 feet) during the same years. Because the summits of Mauna Loa and Mauna Kea are still untenanted (an astronomical observatory is now being built on Mauna Kea), and Haleakala has been occupied only in recent years, the absence of a report of snow on these peaks does not necessarily indicate that snow did not occur. Nevertheless, it would appear that snow in June in Hawaii at elevations as low as that of Haleakala summit is exceedingly uncommon.

Dry weather has been affecting virtually every part of the State intermittently since early in the year, but has been most widespread and persistent on Kauai. In both May and June

every gage on that island received well below its average rainfall for the month, with many reporting less than half and some less than one-fourth of their monthly means. The western coast was especially dry in June, while Koloa, in southeastern Kauai, had its fifth consecutive month of below normal rainfall.

As for the other islands, almost all of Oahu had well under its normal rainfall in both May and June. Windward east Maui had less than half its monthly average in May, with extremely dry weather spreading in June over the remainder of the island, except for a very few scattered gages.

On Hawaii Island, rainfall over Kohala and Kona remained below normal during May and June, while the eastern (windward) coast and slopes, from lower Hamakua to south Hilo, which had had well under half their normal rainfall in May, returned to slightly above normal in June.

By month's end the dry weather had not yet affected crops severely nor had water shortages been reported, but irrigation was heavy in many areas.

As shown below, five long-period stations had their driest June of record.

Stations With Less Rain in June 1968 than in Any Previous June (25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous June Minimum	June 1968
HAWAII			
Holualoa	39	3,40	2.40
Kaawaloa	26	3.32	2.36
Kealakekua	52	2.63	2.37
Lanihau	25	4.16	2,28
MAUI			
Kula Sanatorium	50	0.03	0.02

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Russell Dorr Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

		_												Dan	of M	onth												_		JUNE		1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	of M	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SLANO DE KAUAI																																
ANAMOLA 1111	2.36				.03	.03		.04		*	.27 .39 .21 .06	.10 .06 .06	.10 .06 .21 .01	.13 .02 .07	.05 .72 .45 .17	:	:	.27 .08 .32 .03	.05 .18 T	.14 .26 .02	.02	.02 .04 .07 .01	:		.18 .29 .10 .02	.01 .08 T	.04	.01	.05 .14 .12 .04	*	:	
MALENANAHO 1006 A HUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WAINIMA PC 1086 A KALIHIWAI PES 1131 A					.32	.17 *	.08 *	.04	.60	.32	.53 .20 .22 .38	.34	.76 .78	.34 .42 .87	.23 1.16 .37 .37	.02	.40	.17 .25 1.08 .54	.08	.11	.08	.04 .16 .26	.15	.20	.22	.04	.11	:17	.04 .38 .26	.20	1.10	
ΚΑΝΑΙΟΜULUHULU 1075 ΚΑΝΕΜΑ PESERVOIP 1092 Α ΚΑΡΑΑ STABLES 1104 Δ ΚΕΔΙΙΑ 1112 Δ ΚΕΚΑΜΑ 944					.05	.04		.02	.05	.03 *	.47 .12 .12	.12 .20 .10 .09	.03 .15 .30 .22	.07 .27 .10	.10 .11 .23 .08	*	.12 *	.02 .42 .20 .21	.04 .05 .05	.06		.05	:	*	.03 .35 .15	.02	.11	.05	.20	:	.20	
KILAUEA 1134 A KILAUEA FIELO 17 1135 A KILAUEA POINT 1133 KOLO 1033 KOLO 4936 A	1.39 2.56 2.27 .00				.05	.02	•10 •06	.01 .01 .28	• • • • • • • • • • • • • • • • • • • •	* • 0 2	.34 .74 .23	.10 .07 .04	.10	.05 .32 .13	.02	.19	* * • 0 8	.29 .31 .04	.07	.05	.01	.13 .04 .02	* .03	* * .03	.13	.01	.01 .07 .02	.01	.12	.73	: !	
KOLOA MAUKA 994 AJLONO PES 1137 AJKUIULA 935 JIHUE VARIETY STA LIHUE 1020 A	2.60				.11 T	.06	.01	.02	•		.45 .64 .10 .10	.10 .01 .12	.42 .35 .09	.15 .18 .07	.45 .13 .05	:	* * * * * * * * * * * * * * * * * * * *	.14 .28 .15 .04	.15 .12 .10 .02	.14 .01 .03 .08	.05	.15 .21 .02 .06	.08	.03	.29 .16 T	.01	.05	.01 .03 .01	.15 .19 .05 .02	:	.88	
LINUE NO AP 1020.I R MAKAMUENA POINT 940.I MAKAMELI 965 A MANA 1026	1.23 .74 .34				.08		.01	.03	.18		.01	.14	.11	.01 .01	.02	.01	.08	.02	.01	.03	.01	.04	20	.02	.07	.02	.02	.03	.01	.01	.32	
MOUDAA 1145 A MOUDA 1145 A MOUDT WAIALEALE 1047 NIU RIOGE 1035 N WAILUA DITCH 1051 A		-	-	-	40	.20	.30	.20	.08	.08	.08	.02	.16		.08	-	.40	.18	.08	-	-	.08	.08	<u>.</u>	.02	-	.08	.16	.07	* -	.39 .17	
PH WAINIHA 1115  PRINCEVILLE PANCH 1117  PUEHU RIOGE 1040  PUHI 1013  A RESERVOIR 6 1004  A	2.31 .05 1.73				.02				.19	.12	.08	.09	.16 .05 .19	.55 .32 .11 .24	.25 .24 .13	.10	.24	.33 .12 .05 .13	.04	.09		.03	.09	.03	.05		.03	.01	.12	:	.62	
MAMIAWA 930 A MAIAMI LOWEP 1054 MAIAMI UPPEP 1052 MAIAMI 943	9.00 5.27 7.26	٠	٠	٠	.12		.06		• • 26 • 29	* .11 .12	.02	.23	.31		.06 * .56 1.05	.01	.50	.12 .06	.03	* •32 •50	.03	* .13	* .11	* •12 •21	.04 * .13 .15	.01	* •03	* •15 •32 •20	.06	• •06 •05	9.00 .91 1.05	
MAILUA KAI 1065 A MAIMEA 947 MEST LAMAI 931 A	.79				.03				•		.16	-14 T	-14	.05	•05 T	•		.08		.08		.02			.06						.03	
* * *  SLANO OF DAHU	1.2								Ť		.15	•02	-17	.00	•11	•	*	. 41	.00	.02	.01	.02	Ť	•	.02	.04	•02	.10	.03	•		
AIRA FIELD 625 761 A BEPETANIA PUMPING STA CAMP 84 807 A CMUPCH COLLEGE LAIE COCONUT ISLAND 840.1	1.37 .66 .44 1.69				.01			.12		• •06 •22	.16 T .01	.03	.13 .09 .01 .07	.04	.27 .23 .28 .21	*	* * * * * * * * * * * * * * * * * * *	.12 * .03	.05		.03	.06	٠	* .10	.02 .03 .01 .05		.22 .13 .01	.04	.01	.05	.07	
EMA PLANTATION 741 MELEMANO INTAKE 881 A MOKULOA 725.2 ADNOLULU 085EPV 702.2 MONOLULU W8FC 703 A	.20 4.76 .62 .17	:	*	.10 *	* *	*	:	.41 +	.05 .06 T	* T	* T	.91	:	* *	.11 .58 .03	* *	6.	.03	1.88 .31 .04	* * T	* * T	.13 *	* *	:	.48	.01	.01 *	*27 *	* *	:	.06 T	
HONOLULU SUBSTA 704 H S P A EXP STA 707 KAMANA 883 A KAHUKU 912 KALLUA FIPE STA 791.3	.41 .92 10.70 .92	٠		T 2.98	*				T *	.03 *	.01 1.98 .15	.05 T *	.11	.18 .12 *	•22 •	*	.05 .05 *	.03 1.92 .03	.02 .06 *	T * .08	•01 •	T *	T * *	:	.04 .01 1.86		.07 .30 *	T *	* .02	:	.01 1.96	
KALIHI RES SITE 777 KANEGHE MAUK 781 KANEGHE PANCH 838 A KAPALAMA 773 A	3.64 1.30 .91 2.74				.08		• 01	.52 .06	.22	• 04 • 02	.20	.04	.03	.72 .18	.04 .01 .10	.02	.06	.14	.26 .01 .25	.10	.08	.02		.08	.02	.08	.62	.06 .42 .16		.03	.06	
KAHAI IKI IN AKE 880.2 A KEMOU CAMP 8 855 AUGUAU DAM 833 LUALUALEI 80% LUALUALEI WTR TUNNEL A	3.41 .55 7.34	٠		• 28	.09 T	* •01 •07		• 18	* 10 .39	• 92	• • 04 T	.04 .90	.01	.01	• 15 • 15 • 12 • 10	* * •53	.14	.01	.01	.06	.07 .16	.20 T	*	.01	.20	.14	• • • • • • • • • • • • • • • • • • • •	• 17	* * *O+	:	3.41	
LUNALILO HOHE 724.2 MANAMA KAI 796 A MANAHA VALLEY 800.1 A MANAPUU POINT 724 MANOA 712	.17 .04 .05			Ť		•			, 02			*	.18		.04	*		•	•	•	.01	.03	•	.01	.02	•	.05		.15	•	•	
MANOA TUNNEL 2 716 MOGNALUA 770 NUUAMU RES 4 783 NUJANU PESEK/OIP 3 775 A	3.01 7.24 1.07 4.09 4.42		٠	.16 T	.08		.06	.58	.05		.16 .07 1.50	*	.20	2.12	1.25	.02	.34	.14 .16 1.69	.14 *	.05	.03 .20 .02 .10	.06	.04	.08	.05	.50	.76 1.14 .17 .32 .34	.04 .08	.02		.10 .44 T	
PALOLO VALLEY 718 PAUDA FLATS :8% PURTUCK ROAD 724.4 PRI HAMIAHA 020.2 ADMALUU 884	2.49 6.36 8.62 .57 .61	٠	*	*04	.05	• 05		.03 .38 1.44 .01	.08	* * *	.10	.20	.20	.04 2.14 0 .04	.04 3.56	*02	.26	.02 .02 *	.18	*	.12 *	.03	.06	.03	.05	.44	.33	т			.18	
PUNCHBOWL CRATER 709 A ST STEPHENS SEM 788 TANTALUS 2 790.5 UNIV OF HAWAII 713 A AMIGAM DAM 863 A	1.84 .89 1.08 5.72 1.40		*	.03 T	.06 .10		• 0 1	.15 T	.02		.04 .08 .16	.05 .05	.10 .06 .03 .27	.09 .10 .17	.73 T 1.33	.06 .17	.03	.07 .03 .19	.05 .06 .44	.02 .01 .02 .09	.09 .04 .08 .12	.15 T		.01	.20 .04 .02 .09	.11	.10 .27 .74	.03	.06 .02 .04 .07	*	.03 .01 .41	
##AJAMOLE 637  ##A ALAE KAHALA 715  ##A ALUA 847  ##A ALUA 847  ##A ALUA 647	3.31 .56 .22			.01	.07	.01		T	.08	*	.71	.02 .18 .01	.05	.03	.07 .14 .14 .06	* 1	* T	.13	.05	.08	.12 T	.03	•	.22	.01 T	.23	.07 .30 .14	•02 T	٠	•	.81	
A A A A B 36 A  NO KANE B 65 A  A K K K K K K K K K K K K K K K K K	6.40 3.90 .43	.04		.36	:	.06	.02	* * * * * * * * * * * * * * * * * * * *	.06	:	.96	*	• 35	.15	.12	• 05	* * T	* .78	*   *   T	.07	* * .01	:	.03	:	* .76 .02		* 14 * * * * * * * * * * * * * * * * * * *	* * * *	*	.06	6.40 1.04	
#AIMEA 892 A #AIPAHU 750 A #ILHELMINA RISE 721	2.19 .17 1.69					.10		·10 ·02	٠		. 47	.27	.12	.10	.79	:	* * *16	.27	.03 .01 .18	.02	.16	.09	٠	*	.12	.20	.06	.04	.11	٠	.04	

to tolorence notes following Station Inde:

Station	Total													Day	of M	onth														JUNE		_19
	Ĕ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	3
SLAND OF MOLOKAI																																
LAUPAPA 563 UNAKAKAI 536 A DNELELE PENS 551 A ALAPUU 534 A	.47			.01			.17	•21	.18	.18	.07	.20	.03	.01	*	.29	*	.04	.05	.05	*	*	•	•	.01	*	* •47 •07	•	*	* .01 .13	•	
JNALOA 511 LOKAI AP 524 JOHOKU RANCH 542.1 IKOLU 540	T _						т	.13 .25		.10		Т	T •15		.05	.05	Ť	T .20	ĺ	т	.10				.57	Ť .30	.02 T	т	1	-	Ţ	
* * * SLANO OF LANA1																			ı,													
NEPUU 690 MALAPAU HAROOR 658 MAI CITY 672 MAIHALE 68+ HANA 694	.93	T	:	*	.01	:	.04	:	* * *36	.01	* .13 T *	*		.40	.38	* T *	:	:	:	* T *	.04	* T *	:	:	* T *		:	.10		.02	.03	
LAUEA 676 A				т				*	:	:	•	٠	*	.02					Ì			٠	٠	•	•	٠	٠	.01				
* * * SLANO OF MAUI																																
AAH1 252 EAKALA 8 E S 434 A EAKALA RANCH 432 A EAKALA RS 338 EAKALA SUMMIT 338.4	2.15	* T	4	٠					.06 * T		.05	•	*	* T	.13	.03	.15 *	.10	.15	* T	.03				.02		.52	:11 †	.I4	*	٠	
LIIMAILE 423 A MAKUAPOKO 485 MA 354 MA AIRPORT 355		_	_ T	-	.01 -	.03	-	T - -40	.06	.02	.02	.02	. I 2 -	.04	.14	* T -	* •08 - •20	.05	.04	.03	.15	† - .03	.03	* T - +12	.03	-	.05 .41 .18	.05	.07	-	.03	3
NAHULI 281 .UA CABIN 259.5 A NOKOHAU 480 A	4.92	T *	* 04	T *				•01	T +		.90	.80	• 2 8 •	* 05	•08	.35	٠	.01	.65	*	.02	.77	.19	.03	.09	.05	.73	.05		.01		
HOKOHUA 493 A NOMANU GULCH 341 A NAPALI AIRPORT	2.42 T					•		•	.03 * T	:	.02	.04	.02	.14	.06	:	* * T	.05	.10 * T	•02 •	.08	.04	*	:	.02		* 26 * T	.02			2.42	
IOMA INTAKE 374 IULUI WB AF 398 RIIILI 436 LUA 446 AULA INTAKE 375	5.24			.02	* T * •02	* 01	* .01	.08 T •	* 40	* 07	* •12 •08	.03	.40	.01 .07	2.83 T *	.02	* T * * 38	.72	* 77	.23	* .61	.09	* .09	.04	* * .36	.01	* .68	T *	1.75 * .11		5.24	
HUA 410 NAE 346 WAKAPU BEACH 260.2 EI 311 AHULU 258	.08		+	*	*	*	*	* - -12	.44	• -	.05	* - .15	.5	* -	.03	-	.43	.17	* -	* -	* -	.16	* -	* -	.22	*	.05	Ţ *	* -	* :	10.40	
A HEIGHTS 323.2 A SANATORIUM 267 AINA 361 NIUPOKO INTAKE 376 A NIUPOKO VILLAGE 372 A			• 0 Z						.02								٠				T *		٠						*		1.30	
P1 UPPER 442 A HINAHINA 466 A KALELE FLO 60 497 A INOA 332	7.00		•		٠	•	.06	* T	* T	•	.21 T		. O+		.02 e	*	*	* .07 .47	* •09 •	.04	* * .05	* * T	•	:	.51		* .26 *	.02	* T	.39	7.00	)
DWALU GULCH 377 A KKEA 350 IA 406 JILEIHULU 259.2 A WELA 490 A	.40 11.10 .52 2.25				.15	* .06		.45	* 88	.56	.66	* .40 .01	.0.	* 39	.74 .08	• 02	.58	* .34 .09 *		2.25	* .63 T *	.06	* .29	.06	.56 .02	.03	* 1.57 .08 *	.15 .07	.05		.40 .20 T	
AKEA BRIOGE 307.2 IPOLI SPRINGS 267.2 A HOKAMDA 2 343 KUKUI MAKAI 472	.00 .38 13.60 2.40			:	.02	* *	:	* * *	:	:	.30	:	.0-	* * *	:	:	:	* * *	* * *	.04	*	:	*	:	. 20	*	:	.38		:	13.60	,
NEME 396  ECKELSVILLE 400.2  N GATES 201.3  LELE 333  MEHAME 301  A	1.73		*					*				T *	T		• 02		.01		.05			٠	٠			.01	.03	T *	.0I *		1.73	
PALAKUA RANCH 250  IKULI 364 EHU CAMP 484 MEE VALLEY 482 KAMOI 449	.49			.18					• 02			.05	.15	.02			.02		.11								.15 .23				9.50	
KAHDI DAM 336 A KAPU 390 LUKU 392 DPA1 RANC + 256 A	9.38	.01	T		.02	.01		• 2 4	. 24	• 01	-12	.47 1.75	.02	.03	.98	.16	1.00	.05	1.09	.13	.57	.01	•	•	.18	T	.04	.21	.14 T	.01	.04	
e e e LANO OF Hewall																																
MA UMI 75 A NI 182-1 A TT HONOKAN' 183-2 A NA 214 ALAU 142	7.11 9.38 3.65	٠	*	*	* • 2 I	* .57 *	.18	*	* * * * * * * * * * * * * * * * * * * *	* * *	.66	* *02 *	*	*	.48 * 2.46	* * * * .03	• • • • • • • • • • • • • • • • • • • •	.03	.52	.39	* .02 .37	.71	* * * *	* *	1.08	.05	.07 *	.32	+ 1.82 9.38 .02	* * *	3.70	
EMAUMAU 52 A EPIULA 117 A EPOHAKU 111 A IAII VOLCNS NP HQ 54	1.85 2.10 8.73	. 52	.01	* *	.08	*	:	*	*	* * * * * * * * * * * * * * * * * * * *	* * * 20	* *	* * * * * * * * * * * * * * * * * * * *	* 50		.22 * * .36	* * 04	* * *	.38	* * *	* * 2.10 .31	* *	.20	.09	* *	.03	* *	* *	* * *	* * T	3.07 1.85	
11 168 A.O. W& AIRPORT 87 A.O. WALOA 70 A.O. WALOA 8EACH 68 A.O. W	8.72	î Ar	T «	.07	.06	.02	T *	.24 *	.97	.19	.20 .41 .10 .06	.04 .10 # .27	:17	1.24	• 20 • 22	.16	.27	.05	.04	.06	.09	.07	.34	.03	.72	.04	.03	.55	.04	.06	2.40	
# # # # # # # # # # # # # # # # # # #	5.46 15.62	• 27 • .17	.08 .08 *	.02	.03	.15 .23	. 47	.02	* 42 * 35 *	*19 * 21 * *	.46 .31 .56	.41	• 2 h	.23		.65	.16	.62	.88	.21	.35	:	.67 * 1.20 *	.25	.26	.10		.25 .45 1.75	.76 1.56		1.40	
EHUE 93.1 A ALA IKI 12 A AWALOA 29 INALIU 73.7	2.73		.54	.43		T .02	.81	*	.28	.07	T .45	.30	.14	٠	* 1.98 .14	.01	*	* T T	.05	T .69	.13 .24 1.21	* T	.51	.01	.25	٠	* .07 .09	.79	.04	.03	.10	

See reference notes following Station Inde

Continued															Dav	of Me	onth	-			-		_								JUNE		1968
Station		Total	1 T	2	3	4	5	6	7	8	9	10	11	12	13		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36 A KAPOHD LAMDING 93.5 A	A 1	1.08 .60 2.84 0.17 1.68	.05	.40		.04	.08 T	T .01	*01	1.44	•	.02	.02 *	.04	* 47	1.85 5.69 1.74	T * .72	.01	.08	* .93	T * .23	1.13	T 1.99 .01 2.10	.04 .01 * *	.05	.12	.02 T .13	.18 .05 * .10	.35	.01 T 1.68 .61	T .	T * .04	1968
KASAINUI UUKER 193 KEHAU 92 KEHAKEKUA 20.2 KEHENA 181.2 KULANAA A F 6	Δ '	6.08 8.67 2.37 5.61 4.10	.07	* 02	.01	.03	T	.53	.92	.64 .01	.66 .18	.39	.45	.39	*30 T *	1.46	.48	12 T	.15	.47 T *	.31 T *	.60 .20 *	.17	.53 T *	†14 †	.23	.05	.08	.28	.07 5.61		.03 * 4.10	
<1PA 89.2 <0HALA 179.1	A	3.47 2.74 3.51 3.18 4.40	.01	.11	.01		.08 .10 .16 .10	.05 T	.01	.94 * *	.79	.76 .12 .18 .06	.55 .05 .05 .08	.01	.05	2.81 .15 .19 .18 1.28	.95	.06	.70 .07 .06	1.12 .42 .45 .51	.46	1.26 .18 .33 .24	.05 .04 T	.48	.21 * .01	.27 .67 .68 .21	.16 .10 .16	.21 .04 .03 .03	.36 .62 .54 .62	.30 .10 .40 .11	* • 02	*	
KONA AIRPORT 68.3 KONA VILLAGE 93.8 KUKAIAU 222 KUKUIMAELE MIC 199 KUKUIMAELE MILL 206		.85 .37 5.28 1.42 2.17			T		.05			.01	•21 •27	.03	.05 .02 .03	.14		3.44 1.05 1.56	.05	.34	.01	.06	Т	.23			T •	.11 .05	.05	.12 .04 .01	.94	.11	Т	.12	
KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68.2 HANUKA 2	A	6.84 3.29 4.46 2.28 1.80	* 39	* 0.5	.02	. 03 e	٠	•02	.25	.55	.71	.24 .15 .04 .09	•10 •	.10 •	.35	2.57 2.05 2.10 .10 .90	.54	*	.17	. 54 e	.11 .10 *	.21	1.90	*		.04	.05	.14 .02 *	.12	.18	٠	٠	
MIDDLE PEN 147.1	A	.14 1.42 2.82 .12 1.90	1.10		:	:		:	T *		:	1.25	.35 .07 *	• 03	* *	.10 .95 .40 .12			T *		• 01		٠	*	.04							1.90	
MOUNTAIN VIEW 91 NAALEMU 14 NAPOOPOO 28 NAULU FOREST 38.6 NIULII 179	A	4.94 2.59 2.54 7.44 2.82	.28	.09 0 0	.05	.10	.06	:	*01	1.24		.73 .31 1.13 .02 .13	.88 T *	.61 T *	*	2.08 2.12 * 4.64 .25	.78 * .15	.20 * .01	.24 .54 .02 .05	.21	.62 .08	.93 .06 *		*	.15	.43 T .11 .02	* .01 .10				*	٠	
OOKALA 223 OPIMIMALE 2 24.1 ORCHIO LAND EST 91.5 PAAUHAU 217 PAAUILO 221	Α 1	5.45 2.42 11.53 4.29 4.72	T .	۰	Ţ		.11 *	T .	.03	• 01	.01		.13	• 01	*	3.01 .47 5.90 3.02 3.45	.08 T	.02	.06 T	.07	.06	.46 .11 *	2.97		.04	.05	.04	.26 T * .14	.16 * .93	.50 2.27 .01 .09	.01 .39 *	*02	
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144-1 PAPAIKOU MAUKA 140-1	A 1	2.24 14.93 2.90 10.01 12.54	.12	.04 .02 * T	* T .02	.12 .04	.06 *	*	٠	.05 .95 *	.02 .98 .56	.57	.81 * .39	.49 * .17		2.01 4.25 4 1.64 2.31	. 42 . 85	.10	.13 * .51	.42 * .87 1.28	.76 * .10 .27	1.02 * .96 1.43	.19	.70	.21		.14	.26 * .10 .20	.34 * .57	.29 .45	.02	2.90 T	
POHAKULOA 107 PUAKU 95.1	A I	7.95 17.00 .85 .12 1.82	.05 * *		.01	:	*****		*	*41	**	.61	**	*	. 22 * * *	2.21 * * .11	.54 * .85 *	.16	*	.36	.42 *	* *	* *	*	.01	* 23	.05	**	**	17.00		1.82	
	A	1.20 1.55 1.83 2.76 6.07	.02		.01	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * *	* * * .02	• • • •	* * *	.08	.03	.01	.26	* * * .17 2.65	* * * *	.09	* * .04	* * .15	* * * * * * * * * * * * * * * * * * * *	• • • •12 •07			*	.55		* * .01 .03	* * • •79	* 14	*	1.20	
SACOLE ROAD 1 84	Δ	.79 14.38 2.59 3.56	*	* •12	:	:	9	*	. 50 e	*	*	.23 * •	*	•	*	.51 * 1.97 3.19	6.34 T	*	* * .12	T * *	*	*	4.00	:	.34	.05 * *		*	*	3.54	.10	*	
UPOLU POINT USCG 159.2 MAIAKEA SCO 88.2		1.63	.04	.02		.07	.13	.02	* 0 1	.07	1.44	.01	. 58	•17	.77	+12 1+45	. 42	.02	.01		.06	1.25	.07	.12	.02	.32	.02	.04	.20			.05	

## SUPPLEMENTAL DATA

		(	Win Speed -		)		Relati	ve humi		rages -		Numl	per of d	ays with	precipi	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI	DIAN TI 2 PM	ME 8 PM	Trace	60:-10:	1049	5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILU. HAWAII. WE AIRPURT	15	1.2	6+4	21	E	U3	86	76	68	80	3	5	16	1	3	0	28	36	7.9
HONOLUL , CAHU, WBFC 703	5	13.6	14+1	26	N	28+	72	65	52	67	16	7	1	U	0	0	24	68	5.5
KAHULUI: MAUI. WB AIRPURT	6	12.8	13.9	3 ∪	Ε	14	83	71	54	74	7	5	0	U	0	0	12	73	5.2
CIMUL . NAUAL . WS AIRPORT	6	11.4	12.0	21	NE	25	85	78	70	82	0	17	4	0	0	0	21	70	5.5

- 75 -

MIN

Continued										DA	AIL	Y	TE	M	PEI	RA	TU	RE	S												A1I UNE	1968
Station																Day	of Mo	onth														erage
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31	
ISL-NO OF HAWAII																																
MAINA 214	MAX MIN	83 63	83 64	83 64	8 Z 6 6	82 68	8 2 6 5	83 64	83 67	83 64	84 65	8 2 6 7	84 67	83 67	8 2 6 3	82 67	82 67	83 66	81 68	83 68	80 67	83 67	83 67	82 67	82 67	84 65	85 64	83 67	83 66	8 2 6 6	83 65	82.7 65.9
HAWAII VOLCNS NP HQ 54	MAX MIN	69 53	69 53	71 53	71 54	69 55	70 54	73 58	68 58	68 55	68 56	69 55	68 55	66 57	66 54	68 54	67 55	70 54	70 56	69 57	63 54	68 55	71 59	66 54	72 56	70 55	7 <b>2</b> 56	70 57	68 58	70 55	72 55	69.0 55.3
HILL WE AIRPORT 87	MAX MIN	84 69	86 70	86 69	85 70	85 68	88 68	84 69	83 70	85 68	81 70	84 67	83 68	83 70	82 71	83 68	83 69	82 69	83 70	81 69	84 68	85 68	84 70	84 67	83 70	83 69	85 70	84 72	85 74	84 69	86 67	83.9 69.2
KAINALIU 73.2	MAX MIN	78 63	78 64	78 65	79 64	79 67	81 66	79 64	78 66	6 J	79 63	8 O 6 5	79 67	80 65	78 65	79 64	81 65	79 67	78 65	76 65	79 67	79 64	79 63	80 64	81 65	81 66	81 64	80 64	8 2 65	8 2 6 5	80 64	79.5
KAMUELA 192.2	MAX MIN	8 0 5 4	75 56	74 53	74 52	75 55	76 55	76 58	78 60	76 57	73 60	70 60	74 57	75 53	76 53	76 56	73 57	73 57	73 56	75 60	71 58	74 57	73 58	74 56	74 60	72 58	73 59	75 60	74 59	74 59	71 59	74.2 57.1
KAMUELA AIRPORT 191	MAX MIN	76 54	76 56	76 57	74 56	76 57	76 56	76 56	76 56	76 60	74 57	76 54	76 55	75 56	74 <b>5</b> 3	73 56	74 57	75 55	72 52	74 48	74 49	75 51	75 53	75 52	74 57	72 54	74 58	76 59	74 57	74 60	74 56	74.7 55.2
KEAAL 92	MAX MIN	85 66	85 66	85 66	85 66	85 67	85 65	86 65	85 66	85 66	85 66	8 O 6 6	83 66	83 67	82 68	8 4 6 5	84 65	8 4 6 5	8 2 6 7	84 68	75 65	82 66	85 66	85 66	85 66	84 67	85 68	85 68	85 70	85 66	85 66	83.9
KEALAKERUA 26.2	MAX MIN		78 64	78 65	77 62	79 67	8 2 66	79 64	78 65	81 64	80 63	79 65	79 66	78 64	78 64	80 64	80 64	80 66	77 63	76 63	79 67	80 65	80 63	81 64	81 66	8 O 6 O	82 64	8 1 6 4	82 64	81 64	8 2 6 5	79.6 64.5
KOHALA MISSION 175.1	MAX MIN	82 64	8 2 66	82 69	81 69	81 69	82 69	82 65	81 70	8 1 70	82 69	80 70	82 70	8 2 6 9	83 68	8 O 7 O	81 69	81 70	80 69	81 68	78 70	80 70	81 69	80 70	80 70	80 68	8 1 6 8	83 69	81 70	81 70	81 69	81.1
KONA AIRPORT 68.3	MAX MIN	85 67	84 67	83 66	84 68	<b>8</b> 4 66			84 66	84 66	<b>8</b> 3 67	84 67	84 67	83 66	84 67	84 64	85 68	84 66	83 65	84 64	84 64	84 64	83 66	85 67	85 66	85 67	8 <b>4</b> 6 7	84 64	85 67	84 67	84 66	84.0
KULANI CAMP 79	MAX MIN	68 49	67 41	68 43	67 49	68 48	67 42	71 52	63 54	64 46	65 45	65 48	62 49	63 53	64 50	67 46	61 50	65 50	65 54	63 52	63 58	64 45	67 55	67 43	69 51	60 51	67 51	66 52	64 54	68 48		65.4 49.3
MAUNA KEA BEACH 98	MAX MIN	87 70	89 70	88 71	8 8 71	84 70	87 71	87 71	8 2 7 1		87 74	90 74	91 70	86 71	83 72	84 73	86 72	85 73	84 74	87 72	88 71	85 73	95 73	94 69	90 62	90 75	88 75	87 73	91 75	89 72	96 72	87.9 71.7
MAUNA LOA SLOPE 085	MAX MIN	58 40	63 42	60 42	62 40	62 46	58 43	58 40	53 36	52 36	55 36	53 38	51 38	52 37	44 32	48 35	54 38	56 38	57 38	56 44	60 43	58 41	60 42	60 43	58 40	58 39	58 38	52 38	53 39	58 38	54 36	56.0 39.2
MOUN AIN VIEW 91	MAX MIN	8 2 6 1	81 60	8 O 6 O	80 60	78 60	79 59	8 2 5 9	76 63	75 62	76 62	72 60	79 61	74 62	76 64	76 61	77 61	78 61	74 63	76 64	70 61	79 62	79 61	80 61	78 64	78 62	80 62	81 63	78 66	79 63	81 60	77.8 61.6
NAALEHU 14	MAX MIN	8 1 70	8 2 6 8	82 68	81 70	92 71	8 Z 6 9	82 69	82 69	81 68	81 68	9 B	81 69	80 71	79 64	79 64	8 2 6 8	8 Z 6 B	8 1 6 8	82 71	85 69	81 68	81 68	8 Z 6 9	82 69	82 66	83 69	8 2 7 0	8 Z 7 O	8 2 70	8 2 66	81.6
00×ALA 223	MAX MIN	83 69	83 69	83 71	82 69	83 71	83 71	8 2 7 2	8 4 70	84 70	83 70	79 69	83 70	84 70	84 70	79 68	8 2 6 9	82 67	79 69	81 69	78 69	8 2 6 9	8 Z 6 9	82 70	81 69	8 2 6 8	8 2 6 8	8 1 70	8 2 7 1	81 70	84 68	82.0
OPIHIHALE 2 24.1	MAX MIN	74 60	78 60	76 60	82 63	78 64	82 63	8 0 6 4	81 62	83 64	77 64	78 64	77 63	77 63	8 2 6 1	80 63	78 64	75 62	74 63	79 64	78 63	81 63	82 61	84 62	80 65	79 61	8 2 6 2	8 4 6 2	8 O 6 4	82 63	81 60	79.5 62.6
PAHALA 21	MAX MIN	81 63	79 64	80 65	80 67	81 66	83 64	82 67	80 68	81 65	8 I 65	80 64	83 64	80 65	8 1 6 5	81 64	82 68	81 64	81 64	81 66	78 64	80 63	8 2 6 3	80 67	81 67	80 65	82 66	81 68	82 67	8 2 6 2	8 4 6 2	81.0 65.1

### **EVAPORATION AND WIND**

Station																Day	Of M	onth											-				g, a
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * ISLANO OF KAUA1																																	
L1HUE W8 AP 1020.1	EVAP WIND MAX MIN	91	89	125	140	179	166	122	91	167	169	175	151 86	164	.33 185 89 69	193	.48 202 88 68	218 87	206 87	187	162 86	188	195 87	192 86	171		.42 184 90 68	189	212 84	203	177		10.82 5103 88.6 68.0
ISLANO OF DAHU																																	
HONDLULU D8SERV 702.2	EVAP WINO MAX MIN	28	.28 28 96 68	92	89	36 94	33	31 97	34 89	41 94	40	50 96	37 90	.29 39 94 72	25 93	55 96		92	47 94	51 94	45 92	36 90	46 93	44	41 96	.37 40 98 71	43 96	35 92	54 95	94	.31 41 96 72		8.418 1210 93.8 70.4
ISLANO OF HAWAII																																	
HILO W8 AIRPORT 87	EVAP WINO MAX MIN	.25 61 90 67	.15 68 92 68	90	82	86	75 92	86	63	.18 57 89 66	46 83	56 84	.10 52 84 67	63	- 45 83 69	47 85	52 86		87	32	44 86	51	40 85	43 84	42 88	51 92	60 89	33 87	85 90 71	66 92	.22 23 92 66		5.138 16988 87.1 68.1

HAWAII DELAYED DATA JUNE 1968

		_																															
Caraine	Total														Day	of N	lonth																
Station	To	1		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
* * *																																	
JANUARY 1968									-																								
KAANAPAL! AIRPORT		.0	1 .	.03	.04	*f1	. 4	0 .03	١.				.05			.04			2.30		1.95	1.35	.02			.09			.04	1.35	.02		
								*																									
FERRUARY 1968																																	
KAMNAPALI AIRPORT	6.42	1		. 15	.02	.08			-20	. 3					.06			.40	.2h	+10	.04	T	1.88	2.40	.12			.40					
* * *																																	
M/RCH 1968																																	
KAANAPALI AIRPORT MOUNT *AIALEALF 1047	3.91	-		-	-04	.33	. ?	5 -	-	-		- 0 2	-15	. 2 4	- 13	. A O	. 18	1-12	÷23	Ť	.04	.06 .24	. 20	1.99	4.06	4.68	3.86	.16	.12	-12	2.72	.03	.08
APRIL 1968																																	
KAANAPALI AIRPORI HOUNT WAIALEALF 1047	2.69							9	.19	) T	21	. 28	T .10	.04	1.27	.63	2.72	.02	T . 2 n	.63	.12 3.78	1.40	.24	.12	2 2.76	6.77	4.49	3,66	2.13	1.89	1.22	1.57	
											_								_														

# DAILY TEMPERATURES

																					_												
																Day	oi M	onth															Average
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
0 0																																	
JANUARY 1968																																	
KAANAPALI AIRPORT	MAX	82 65	80 69	8 O 6 6	77 62	79 67	79 65	79 64	78 63	78 59	78 63	79 62	78 64	79 66	79 <b>5</b> 9	79 6 I	8 O 6 4	79 67	8 1 7 I	8 I 71	8 I 7 3	78 73	80 70	8 2 6 7	8 O 66	79 64	79 64	66 81	7 I 6 7	8 O 6 3	80 63	76 65	79.1 65.5
FEBRUARY 1968																						1						1					
KAANAPALI AIRPORT	MAX MIN	78 62	77 64	80 64	80 70	8 I 6 5	81 63	8 2 7 0	79 66	8 O 6 5	79 61	79 61	80 70	8 1 6 5	8 0 6 5	8 I 7 2	80 69	77 64	77 67		81 72	81 69	76 66	8 I 6 7	8 O 6 4	8 <b>2</b> 7 <b>2</b>	74 65	79 66	82 65	8 I 6 2			79.6 66.2
0 6 6																																	
MARCH 1968																																	
KAANAPALI AIRPORT	MAX MIN	8 2 6 5	83 67	8 2 6 8	70 66	74 67	83	8 <i>2</i> 65	8 2 6 R	8 2 6 4	86 66	8 I 70	79 70	8 2 6 7	76 68	77 64	79 65	80 67	8 2 6 9	63	76 64	74 67	78 66	8 2 6 8	77 68	76 69	8 2 6 8	8 I 6 7	8 I 6 8	81 70	81 68	80 69	79.7 67.0
							į																										
APRIL 1968																																	
KAANAPALI AIRPORT	MAX MIN	8 I 6 5	8 I 6 7	8 2 7 I	79 69	80 65	18	84 68	83 69	84 66	79 63	78 68	8 2 7 1	82 65	85 68	8 4 7 4	8 4 6 9	8 O 7 O	8 2 6 8	83 70	82 68	84 70	84 67	84 71	85 73	83 73	84 71	8 I 6 7	83 69	83 71	84 72		82.4 68.7

DATE	TABLE	STATION	CORRECTIONS
ISLAND OF KAUAI			
DECEMBER 1967	CLIMATOLOGICAL DATA	N WAILUA DITCH 1051	TOTAL PRECIPITATION 35.26; ISLAND AVERAGE 17.96
DECEMBER 1967	DAILY PRECIPITATION	N WAILUA DITCH 1051	TOTAL 35.26
ISLAND OF OAHU			
NOVEMBER 1967	CLIMATOLOGICAL DATA	KANEOHE MAUKA 781	TOTAL PRECIPITATION 7,95, DEPARTURE FROM NORMAL 2,67, GREATEST DAY OF PRECIPITATION 3.11, DATE 17TH, NUMBER OF DAYS WITH PRECIPITATION .10 OR MORE 16, .50 OR MORE 3, 1.00 OR MORE 1, ISLAND AVERAGE 6.21
NOVEMBER 1967	DAILY PRECIPITATION	KANEOHE MAUKA 7B1	TOTAL 7.95, AMOUNT ON 30 .10, 5TH .00, 6TH .00, 7TH .10
DECEMBER 1967	CLIMATOLOGICAL DATA	KAHUKU 912	TOTAL PRECIPITATION 11.61, DEPARTURE FROM NORMAL 7.33
DECEMBER 1967	CLIMATOLOGICAL DATA	OPAEULA B70	TOTAL PRECIPITATION 7.19, DEPARTURE FROM NORMAL .22
DECEMBER 1967	CLIMATOLOGICAL DATA	PRI WAHIAWA 820.2	TOTAL PRECIPITATION 11.57
DECEMBER 1967	CLIMATOLOGICAL DATA	WAHIAWA DAM 863	TOTAL PRECIPITATION 10.37, ISLAND AVERAGE 13.23
DECEMBER 1967	DAILY PRECIPITATION	KAHUKU 912	TOTAL 11.61
DECEMBER 1967	DAILY PRECIPITATION	OPAEULA 870	TOTAL 7.19
DECEMBER 1967	DAILY PRECIPITATION	PRI WAHIAWA 820.2	TOTAL 11.57
DECEMBER 1967	DAILY PRECIPITATION	WAHIAWA DAM B63	TOTAL 11.37
ISLAND OF MOLOKAI			
DECEMBER 1967	CLIMATOLOGICAL DATA	MAUNALOA 511	TOTAL PRECIPITATION 7.70, DEPARTURE FROM NORMAL 4.20, ISLAND AVERAGE 9.13
DECEMBER 1967	DAILY PRECIPITATION	MAUNALOA 511	TOTAL 7,70
ISLAND OF MAUI			
APRIL 1967	DAILY PRECIPITATION	OLINDA 332	TOTAL 9.05
DECEMBER 1967	DAILY PRECIPITATION	KAILIILI 436	TOTAL 15.44
ISLAND OF HAWAII			
DECEMBER 1967	DAILY PRECIPITATION	KAPAPALA RANCH 36	TOTAL 11.71
DECEMBER 1967	DAILY PRECIPITATION	PUUOKUMAU 167	TOTAL 10.01
ANNUAL 1967	SPECIAL WEATHER SUMMARY NOTE BOTTOM COVER PAGE	(153)	THIS STATEMENT SHOULD READ: "A SPECIAL WEATHER SUMMARY
			DESCRIBING UNUSUAL WEATHER IN 1967 WAS INCLUDED IN THE JANUARY, MARCH, APRIL, MAY, JUNE, JULY, AUGUST, OCTOBER, NOVEMBER, AND DECEMBER ISSUES OF THIS PUBLICATION."
ANNUAL 1967	TOTAL PRECIPITATION AND DEPARTURES FROM NORMAL	KANEOHE MAUKA 781	TOTAL NOVEMBER PRECIPITATION 7.95, DEPARTURE FROM NORMAL 2.67, ANNUAL TOTAL 97.60, DEPARTURE FROM NORMAL 32.51, 151 AND OF COMIL AVERAGE 6.

# STATION INDEX

STATION	X NO.	SION	DISTRICT	AGE ‡	LATITUDE	LONGITUDE	ELEVATION	T	ERVA IME A TABLE	ND	OBSERVER	STATION	K NO.	DISTRICT	AGE ‡	LONGITUDE	ATION	TIN	RVAT ME AN ABLES	ID O	JUNE 1968
STATION	INDEX	DIVISI	District	DRAINAGE	LATE	TONG	ELEV	TEMP.	PRECIP.	SPECIAL JAT ROTTS	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LONG	ELEVATION	TEMP	EVAP.	SPECIAL AEX WOTES.	OBSERVER
BRYDESWOOD STA 985 A EAST LAWAI 934 A EKW 3 RESEPVOIR 1094.1 ELEELE 927 A HALAULA 1110 A	0145 0240 0456 0465 0470 0935 1038	01 02 02 02 02 01 02 01	KOLOA KAWAIHAU KOLOA KOLOA KAWAIHAU KOLOA KAWAIHAU LIHUE KAWAIHAU WAIMEA	1 2 2 2 2 2 1 2 1	21 57 22 09 21 56 21 55 22 06 21 54 21 54 22 07 21 58 22 05 21 59	159 32 159 19 159 39 159 30 159 22 159 35 159 19 159 26 159 28 159 41	1610 116 720 440 350 163 253 490 1218		7A 7A 7A 6A 7A 8A	c c	HC BPYDE SUSAP CO. LINUE PLANTATION CO MC PPYDE SUG CO LTD MC BRYDE SUG CO LTD LINUE PLANTATION MC BRYDE SUG CO LTD LINUE PLANTATION C BRYDE FAM CO LTD GROVE FAM CO LTD SILHUE PLTN CO LTD SEVE FAM CO LTD SEXAMA SUGGRE C LTD	MAHANA 694 MALAUEA 676 WATAKEAKUA 685 ISLAND OF MAUI	3461 5286 5301 5704 6012 4 9021	DI LAHAINA DI LAHAINA DI LAHAINA DI LAHAINA DI LAHAINA LAHAINA LAHAINA	1 20 47 1 1 20 50 1 1 20 40 1 1 20 46 1 1 20 47 1		1640 30 1620 3370 1430 1135 2040	74	# 1 6 A 7 A W L W O W I	C C C	DOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
ILIILIULA INTAKE 1050 INIAKE MAINIMA PC 10864 KALINIMAI PES 1131 KANALOHULUHULU 1075 KAPHA RESERVOIR 1092 KAPHA STABLES 1104 KEALIA 1112 KEKAMA 944 KILAUEA 1134 KILAUEA 1135 KILAUEA 1135	2974 3099 3104 3159 3982 4272 4561	01 01 01 01 01 01	LIHUE HANALE I HANALE I WAIMEA KAWAIMAU KAWAIMAU KAWAIMAU HANALE I HANALE I	2 1 1 3 1 1 1 1 3	22 02 22 09 22 11 22 08 22 05 22 05 22 06 21 58 22 13 22 11	159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25 159 24	1070 690 400 3600 800 175 9	8.6	7 A W1 7 A 8 A 7 A 7 A 7 A 8 A 6 A 7 A	0 0 00	LINUE PLIN CO LTD S MC BRYDE SUG CO LIO KILAUEA SUG PLIN CO KANALOHULUNULU R. S. LINUE PLANTATION LINUE PLIN CO LTO LINUE PLIN CO LTO KETAMA SUGAR CO LTO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	FIELO 46 474 HAELANU 477 HALEAKALA 8 E 5 434 HALEAKALA RANCH 432 HALEAKALA PAS 338 HALEAKALA SUMMIT 338.4 HALEHAKU 492.2 HALIHAMILE 423 HAHAKUAPOKO 485	10790 10995 1004 1008 1016 1075 1086	14 LAMAINA 14 LAMAINA 11 HAKAWAO 11 HAKAWAO 12 MAKAWAO 12 MAKAWAO 12 MAKAWAO 13 MAKAWAO 11 MAKAWAO	4 20 59 1 4 20 57 1 1 20 51 1 2 20 46 1 2 20 48 1 1 20 52 1 1 20 55 1	56 20 56 38 56 36 56 18 56 19 56 15 56 16 56 17 56 21 56 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8 A 8 A	7 A 6 A 8 A 6 A 6 A 6 A 6 A 6 A 6 A 6 A 6	c	ULUPALAKUA RANCH MAUI PINEAPPLE COM- S MAUI PINEAPPLE COM- U OF HAMAII EXP STA HALEAKALA RANCH CO HALEAKALA RANCH CO HALEAKALA NAT PAHK U OF MICH MT HKALA OBSY PHIL SCOTT HAUI PINEAPPLE CO- HAWAIIAN COM + SUG CO
KOLOKO RES 1137 A KUKUJULA 935 A LIHUE VARIETY STA LIHUE 1020 A	4568 4650 4735 4742 4750 4758 4950 5560 5575	01 01 00	KOLOA	1 2 2 2	27 14 22 02 22 04 21 55 21 58 22 11 21 54 22 01 21 59 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23 159 22 159 21	180 2150 36 240 640 737 100 375 207 103	MIO	7A 8A 7A 7A 6A 7A 7A MID 8	C C DAC J	U S COASI GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO LID GPOVE FAPW CO LTO GROVE FARM CO LTD KILAUEA SUG PLIN CO MC BRYDE SUG CO LTO HAWAIIAN SUGAR PL ASSN LIHUE PLIN CO LTD U S WEATHER BUPEAU	HONOKOHAU 480 HONOKOHUA 493 HONOLUA FLO 49 494 HONOMANU GULCH 341 IAO NEEDLE 387*2 KAANAPALI AIRPORT	1125 (1148 (11552 (1168	DI HANA II HANA II HANA II HANA II HANA II HAKAWAO II HAKAWAO II HAKAWAO II MAKAWAO II WAKAWAO II HAKAWAO II HAKAWAO II HAKAWAO II HAKAWAO II HAKAWAO	1 20 48 1 1 20 41 1 2 20 45 1 4 20 58 1 4 21 00 1 4 21 01 1 1 20 47 1 3 20 53 1 20 56 1	55 59 56 01 56 01 56 13 56 36 56 39 56 38 56 14 56 33 56 42	120 61 325 6930 870 135 125 6280 1100	11A 1	8A 1A 7A MO MO MO 6A MO 8A	c	HARPY HASEGANA HAWAIIAN AIRINES KOALI PANCH HALEAKALA NATL PARK PGS MAUI PINEAPPLE CO HAUGH PINEAPPLE CO HALEAKALA RANCH TO HALEAKALA RANCH TO SIALE DIVISION OF PAPK AMFAC PROPERTYS
MARAHUENA POINT 940.1 MARAHELI 965 A MANN 1026 M + M 1001 MOHHHL UPP CROSS 1083 MOLOAA 1145 MOUNT WAIALEALE 1047 NIU RIDGE 1035 N WAILUA DITCH 1051 A N WAILUA RIVEP 1055	578 586 608 609 643 652 656 685 688 6893	03 02 01 02 03 02	KOLOA WAIMEA WAIMEA KOLOA WAIMEA KAWAIHAU WAIMEA WAIMEA LIHUE LIHUE	3 2 3 1 2 3	21 52 21 55 22 02 21 55 22 07 22 11 22 04 22 02 22 04 22 04 22 04	159 27 159 38 159 46 159 28 159 36 159 20 159 30 159 44 159 28	52 140 11 300 3500 330 5146 1250 1110 650		8A 7A 9A MID 7A 6A 7A	c	U S COAST GUARO OLONELE SUGAP CO KEKAHA SUGAR CO LTD GROVE FAPH COMPANY U S GEO SURVEY LIMUE PLANTATION CO. U. S. GEO. SURVEY KEKAHA SUGAR CO LTD LIMUE PLIN CO LTD	KAHULUI MB AP 398 KALILIL 436 KALILIL 436 KALUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEANUA 410 KEANUA 346 KEAWAKAPU BEACH 260.2	2552 (2572 : 2630 (2579 (3579	WAILURU LAHATNA	4 20 54 1 3 20 54 1 1 20 51 1 1 20 54 1 4 20 53 1 2 20 39 1 3 20 52 1 1 20 50 1 2 20 42 1	56 33 56 38 56 26 56 16 56 13 56 38 56 08 56 23 56 10 56 27	2520 700 1585 1020 460 980 20	7.6	WI ID HO 7A WI 5A HO 8A	c s	EDWARD CHANG PINNER MILL CO LTD U S WEATHER BUREAU E MANII IPR CO LTD E MANI IPR CO LTD PINNEER MILL CO LTD FAUPO PANCH HAWAIIAN COM + SUG CO E MANI IRR CO LTD S A+ L+ COPELL
RH WAINIHA 1115 RRINCEVILLE PANCH 1117 RUEHU RIDGE 1040 PUHH 1013 ARESERVOIR 6 1004 STABLE CAMP 1055-1 WANIAWA 930 WANIAWA MOUNTAIN 990 WAIAHI LOWER 1054 WAIAHI LOWER 1054	8573 8694 8941 8949 8958	01 02 02 02 02 02	HANALET HANALET WAIMEA LIHUE LIHUE LIHUE KOLOA KOLOA LIHUE LIHUE	2 2 2 2 2 2	22 12 22 13 22 01 21 56 21 57 22 04 21 54 21 56 21 58 22 01 22 01	159 34 159 29 159 42 159 27 159 27 159 27 159 34 159 31 159 27 159 28	101 295 1660 329 420 740 215 2100 565 780	6A	6A 7A 7A 8A 8A 7A HO 6A 8A	00	HC BRYDE SUG CO LTO PRINCEVILLE RANCH KEKAHA SUGAR CO LID GROVE FARM CO LTO GROVE FARM CO LTO LIHUE PLANTATION CO. HC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIHUE PLTN CO LTO LIHUE PLTN CO LTO		4634 4887 5003 5006 5177 5404 5408 5565 5715	14 LAHAINA	1 20 39   4 20 54 1 2 20 47 1 2 20 42 1 4 20 53 1 4 20 51 1 1 20 53 1 4 20 57 1	56 27 56 04 56 35 56 19 56 22 56 41 56 37 56 39 56 15 56 40	90 260 5788 2520 3004 45 1280 220 1240 715	74 74 V	7A 7A 6A 7A 7A AR 7A HO 7A	c s	HAWAIIAN COM + SUG CO KIPAHULU CAITLE COMPANY MAUI PINEAPPLE CO KENNETH WILLEY FULLA SAYALTOR IUM PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD PIONEEP MILL CO LTD PIONEEP MILL CO LTD
WAIAWA 943 WAILUA KAI 1065 WAIMEA 947 WEST LAWAI 931 ISLAND OF DAMU AIEA FIELO 625 761 BEPETANIA PUMPING STA	9467 9629 9955 0111 0211	02 03 02 03	HONOLULU	3 2	21 25 21 19	159 43 159 21 159 41 159 31	10 50 20 210		8A 7A 8A 6A		KEKAHA SUGAR CO LTO LINUE PLANTALION WAJMEA SUG MILL CO MC BRYDE SUG CO LTD WAJAHOLE WIR CO LTD BOAPO OF WIR SUPPLY	OLINDA 332 A OLOWALU 296 OLOWALU GULCH 377 A PAKEA 350 PATA 406	7043 ( 7043 ( 7059 ( 7059 ( 7066 ( 7194 ( 7566 ( 7674 ( 7674 (	14 LAHAINA 14 LAHAINA 11 MAKAWAO 14 LAHAINA 14 LAHAINA 11 HANA 11 WAILUKU 14 HANA 15 MAKAWAO 16 WAILUKU	21 02 1 1 20 48 1 20 49 1 1 20 49 1 1 20 49 1 1 20 65 1 20 61 1 1 20 55 1	56 37 56 36 56 17 56 38 56 36 56 07 56 23 56 08 56 19 56 31	129- 34- 412- 77- 800- 1260- 170- 3570- 485- 167	V	AR AR 70 60 60 60 60 60	c	MAUI PINEAPPLE CO MAUI PINEAPPLE COMPANY MAUI CO WATER DEPT PIONEER MILL CO. PIONEER MILL CO. TO LTO HAWAILAN COM + SUG CO KAUPO PANCH CO. HASEROT PINEAPPLE CO. WALUKU SUGAR CO.
CHURCH COLLEGE LAIE COCONUT ISLAND 840.1 OWSETT HIGHLOS 760.8 EWA RLANTATION 741 HALAMA SHAFT 771.2 HELEHAND INTAKE 881 HORULOA 725.2 #HONDLULU OBSERV 702.2 #HONDLULU WBFC 703	0340 0350 0438 0507 0964 1384 1540	01 02 03 02 05 03	HONOLULU WATALUA EWA HONOLULU	3 2 5 3	21 19	158 04 157 56 157 47 157 50 158 02 157 54 158 00 158 06	680 20 13 565 42 170 1274 2220		7A WI VAR		DEL MONTE CORPORATION RICHARD COBUPN U OF H MAPINE LAB J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA AGR CO LTO H. V. VON HOLT U S COAST + GEORETIC U S WEATHER BUREAU	PUU KUKUI MAKAI 472 A PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400-2 TWIN GATES 261-3	8543 ( 8543 ( 8553 ( 8688 ( 8742 ( 8744 ( 8750 (	11 HANA 14 LAHAINA 13 WAILUKU 11 HANA	1 20 50 1 20 55 1 20 53 1 1 20 46 1 3 20 54 1 1 20 46 1 1 20 48 1	56 20 : 56 13 56 38 56 27 56 03 56 25 56 25 56 35 56 24	6150 2980 2500 60 2160 85 1310 5230 75 1900	V	AP HO 7A 8A AP MO 7A		STATE DIV OF FORESTRY E MAUI IRP CO LTO PIONEEP MILL CO LTO HAWAIIAN COM + SUG CO EAST MAUI IPPIGATION CO HAWAIIAN COM + CUG CO KAONOULU RANCH HALEAKALA RANCH CO PIONEER MILL CO LTO ULUPALAKUN SCH CO LTO ULUPALAKUN SCH CO CTO
JACHOLULU SUBSTA 704 H S P A EXP STA 707 KAALAKEI 724.6 KAHAMA 883 KAHJKU 912 KAILUA FIPE STA 791.3 KALIHI RES SITE 777 KAMEHAME 724.7	2146 2269 2462 2570 2683 2960 3056 3113	02 01 01 01 02 01	HONOLULU HONOLULU HONOLULU KOOLAULOA KOOLAULOA KOOLAUPOKO HONOLULU KOOLAUPOKO KOOLAUPOKO	1 1 1 1 1 1 1 1 1	21 19 21 18 21 18 21 31 21 41 21 24 21 23 21 19 21 25	157 55 157 52 157 50 157 43 157 54 157 57 157 45 157 50 157 41	50 10 800 25 10 910 1380	M1	W1 BA W1 BA BA H10	c	ESSA-WEATHER BUREAU  5 P A EXP STATION  HRS, MILLIE ZAPATA  WAIAMOLE WIR CO LTO  KAHUKU PLIN CO  KAHUKU PLIN CO  KAHUKI FIRE STATION  BOARO OF WIR SUPPLY  HAMALI NATIONAL GUARO  STATE HOSPITAL	WAHIKULI 364 WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAHOI 449 WAIKAMOI OAM 336 WAIKAMO 390 WAILUA IKI 348 WAILUU 392	8955 9275 9315 9332 9335 9376 9460	A LAHAINA 24 WAILUKU 24 WAILUKU 21 HANA 21 MAKAWAO 31 HANA 22 WAILUKU	20 54 1 3 20 55 1 4 20 57 1 1 20 52 1 1 20 49 1 3 20 52 1 1 20 48 1 20 52 1	56 40 56 31 56 32 56 12 56 14 56 31 56 09 56 30 56 12	580 320 300 1200 432 470 2630 200 220		BA 6A 6A	-	PIONEER MILL CO LTD WAILUKU SUGAP CO WAILUKU SUGAP CO WAILUKU SUGAP CO F MAUI IRR CO LTO MAUI COUNTY WIR DEPT WAILUKU SUGAR CO SEAST MAUI IRPIGATION CO ST. ANTHONYS BOYS CH HALEAKALA PANCH CO
KANEDHE RANCH 838 KAPAKA HAKAI 905-1 KAPALAMA 773 KAWAIHABAT 801 KAWAI 1K1 INTAKE 880-2 KAWELA NAUKA 906-3 KEMOD CAMP 8 855 KOOLAU DAW 833 LUALUALE1 804 LUALUALE1 WIR TUNNEL LULUKU 781-7 LUALUKU 781-7 LUALUALOME 724-2	4766 5647 5650 5655	01 02 05 05 05 05 05 06 04	KOOLAUPOKO KOOLAULOA HONOLULU WAIALUA WAIALUA KOOLAUPOKO WAIALUA WAIAWA WAIAWA WAIAWAE WAIAWAE WOOLAUPOKO MONOLULU	1000101014	21 23 21 36 21 21 21 35 21 34 21 40 21 33 21 30 21 26 21 29 21 24 21 17	157 47 157 54 157 52 158 11 157 59 158 00 158 05 157 58 158 08 158 08 157 49 157 42	365 1 61 2 118 1050 725 1160 113 1500 240 40	7.8	8A 7A WI 7A 8A 7A WI 7A	c c	KANEGHE RANCH CO GEORGE H. SWIFT KAMEHAMEHA SCHOOLS WAIJAUJA AGR CO LTO WAIJAUJA AGR CO LTO WAJAUJA AGR CO LTO WAJAUJA AGR CO LTO WAJAUJA AGR CO LTO WAJAUJA AGR CO LTO WAJAUJA CON CONTROL WAJAUJA CONTROL WA	AMINI 182.1 EAST MONOKANE 183.2 HAINA 214 HAAALAU 142 HALEPIULA 117 HALEPOHAKU 111 HAWAII YOLCNS NP HO 54	0190 0450 084 090 103 106 106	HAMAKUA HAMAKUA KAU	1 20 10 1 1 20 07 1 1 20 06 1 2 19 54 1 3 19 24 1 1 19 56 1 2 19 46 1 2 19 26 1	55 47 55 43 55 43 55 28 55 17 55 28 55 16 55 50	5220 1870 4240 105 3648 5770 9220 3971 600	7= 1	MG WI MG 7.A 7.A MG MG MG MG MG	c	GREENWELL PANCH  KOHALA DITCH CO LTD  KOHALA DITCH CO LTD  KOHALA DITCH CO LTD  KOHALA DITCH CO LTD  FEDEREO SUGAP CO  HAWAII NAT PAPP  KUMAIAU RANCH CO  STATF DIV. OF PARS  HAWAII NAT PAPP  KOHALA SUGAP CO
MAKAHA KAI 796 MAKAHO YALLEY 800-1 MAKAHO YALLEY 800-1 MAKAHU POINT 724 MANOA 712 MANOA TUNNEL 2 716 MAUNAHILI 787-1 MOANALUA 770 MOUNT KAALA 844 NUUANU RES 4 783 NUUANU RES 5 775A	5766 5781 5800 6122 6130 6222 6395 6553 6928 6933	04 04 02 01 01 0	HAIANAE HONOLULU HONOLULU HONOLULU KODLAUPOKO HONOLULU HAIANAE HONOLULU HONOLULU	4 2 2 2 1 2 4 2 2	21 28 21 29 21 19 21 19 21 20 21 21 21 21 21 21 21 21 21 21	158 13 158 12 157 39 157 49 157 48 157 46 157 54 158 09 157 49 157 50	25 16 538 220 650 410 20 402 1048 41		7A BA BA BA HID 9A MID VAR	c c	CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARO MRS.JOHN H.BEAUMONT ROARO OF WIP SUPPLY EXP. STA. M.S.P.A. JOHN A ROXBURGH FEOEPAL AVIATION ADM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY	HILO WB AIRPORT 87 FOULUALDA 70 HOLUALDA 70 HOLOALDA BEACH 68 HONAUNAU 27 HONOHANA 137 HONOMA HAUYA 138 HONOMA HAUYA 138 HONOMA LA 71 HALALALA 172 HA	1492 ( 1557 ( 1562 ( 1665 ( 1701 ( 1864 ( 1960 ( 2047 ( 2151 (	S HILD N KONA N KONA S KONA 2 N HILD N KOHALA 22 S HILD 4 N KONA N KONA N FONA	2 19 43 1 4 19 38 1 4 19 37 1 4 19 27 1 2 19 56 1	55 04 55 55 55 59 55 53 55 09 55 44 55 09	27		1D MID MO 7A 7A 7A 7A 7A 7A 4O 4O 5A	K J	U S WEATHER BUREAU STATE DIV OF FORESTRY VARIOUS PANCH HANDS CHAPLES HUA PEPEEREO SUGAP CHYPANY KOMALA DITCH CO LTD PROFERRO SUGAP CO. STATE DIV OF FORESTRY HUFFHUE RANGE
PUNCHBOWL CRATER 709 A ST STEPHENS SEM 788 TANTALUS PEAK 780	8316 8600 8730	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	HONOLULU KOOLAUPOKO HONOLULU	2 3 2 5 1 2	21 35 21 19 21 22 21 20	158 02 157 46 157 48 157 58 157 43 158 01 157 54 157 51 157 47 157 49	1060 995 1640 240 6 700 40 360 488 200	9.8	7A MID MID 7A 8A 8A 7A	K K	WAIALUA AGR CO LTO BOARD OF WER SUPPLY BOARD OF WER SUPPLY JAMES HUMBEND MRS ALFRED FRANCO. JR. PINEAPPLE PESEARCH INST KARJUL PLTN CO NAT MEN CEMETERY REV R CULLINAN BOARD OF MATER SUPPLY	KAALA 1K1 12 KAAMALOA 29 KAHI AWAI 3-4 KAINALIU 73-2 KALAPANA NO 1 67-8 KAMAOA NO 2 5 KAMUELA 192-2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36 KAPOHO LANDING 93.5	2512 0 2751 0 2894 0 3048 0 3077 0 3078 0 3300 0	14 N KONA	4 19 30 I 19 06 I 19 32 I 19 20 I 19 02 I 1 20 01 I	55 34 55 46 55 46 55 02 55 40 55 40 55 40 55 40 55 40 55 40 55 40	1340 1330 370 150 1 1375 2670 2665 2140 290	7A VA	7A 3A 7A 4R 41 5A 8A 6A	K	MUTCHINSON SUGAP CO CAPTAIN COOP COPFEE CO. RUSSELL P. SMITH KONA EXPEPIMENT STA HAMAII VOLCANOES NAT P. HAMAIIAN SANCH CO. PARKER RANCH HAMAIIAN AIRLINES HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARO OF WATEP SUPPLY
TANTALUS 2 700.5 UNIV OF MAWAII 713 A WAHAWA OAM 863 A WAIAHOLE 837 WAIAHOLE 837 WAIALUA 847 WAIANAE 798 WAIANAE MAUKA 803 WAIAWA 836 A	8815 8945 8964 9185 9195 9231 9238 9261	02 05 01 02 05 04 04	HONOLULU HONOLULU HONOLULU HANALUA KOOLAUPOKO HONOLULU WAIALUA WAIANAE WAIANAE	2 5 4	21 18 21 30 21 28 21 17 21 35 21 27 21 27	157 50 157 49 158 03 157 53 157 47 158 07 158 11 158 09 157 56	1325 7 854 745 40 32 20 1575 800	71	8A 7A 8A 7A 7A 8A WII	8	R. F. MHITE DEPT OF GEOSCIENCE MAIAUMA AGR CO LTD MAIAMOLE WIR CO LTO SPENCER TINKER MAIAUMA AGR CO LTO CAPITAL INVEST CO MAIAMOLE WIR CO LTO MAIAMOLE WIR CO LTO MAIAMOLE WIR CO LTO MAIAMOLE WIR CO LTO MAIAMOLE WIR CO LTO	FAUMANA 88.1 KAWANUI LOWER 193 A KEAAU 92 KEAIWA CAMP 22.1 KEALAKEFUA 26.2 REANAKOLU CAMP 124.2 KEHENA 101.2 KIOLAKAA A + F 6	3872 0 3925 0 3977 0 4098 0 4245 0	S HILO DI HAMAKUA PUNA S KAUNA S KONA DI HAHAKUA DI N KOHALA DI N KOHALA DI S KAU	2 19 38 1 19 14 1 19 30 1 2 19 55 1 1 22 07 1	55 09 55 39 55 02 55 29 55 55 55 21 55 45	1123 1080 280 1700 1450 5280 3840	8A 8	5A #1 3A 3A	Line	SHIRED MASUYA HONDKAA SUGAR CO PINA SUGAR CO HAVALIAN ASPI, COMPANY MISS ANY GREENWELL TATE DIV. OF FORESTRY STATE DIV OF FORESTRY
MAIKIKI 717.2 WAILUPE RESV. 723.2 MAILUPE VLY SCH 723.6 MAIMANALO 794 MAIMEA 892 MAIPAHU 750 MILHELMINA RISE 721  1SLAMO OF HOLOKA1	9397 9495 9500 9521 9593 9738 9980	02 07 01 01 01 01	KOOLAUPOKO HONOLULU HONOLULU KOOLAUPOKO WAIALUA EWA HONOLULU	2	21 30 21 16 21 18 21 18 21 21 21 38 21 23 21 23	157 53 157 49 157 45 157 45 157 45 157 46 158 04 158 01 157 47	760 10 170 180 60 420 59	A.	W1 RA W1 8A 7A 89		HONOLULU 200 BOARO OF WIR SUPPLY WAILUPE VALLEY SCHOOL ST OIV WIP + LAND OEV WAIALUA AGR CO LTO DAHU SUGAR CO BOARO OF WIR SURPLY	KIRA 89.2  KOHALA 179.1 KOHALA HAULILI 176 KOHALA MISSION 175.1 KOIAWE LOWER 196 KONA AIRPORT 68.3 KONA VILLAGE 93.8 KUKAIAU 222 KUKUIHAELE MILL 206	4670 0 4675 0 468 0 476 0 476 0 4815 0 4928 0 4938 0	1 N KOHALA 1 N KOHALA 1 N KOHALA 1 HAMAKUA 24 N KONA 24 N KONA 24 HAMAKUA 1 HAMAKUA	1 20 13 1 1 20 14 1 1 20 05 1 4 19 39 1 4 19 52 1 1 20 02 1 1 20 07 1	55 47 55 47 55 48 55 38 56 01 55 55 55 21 55 35	309 960 537 720 17 15 840 980 300	7 A 3	VI 7A 7A 7A VI 9A 9A 9A 9A		MANHA FEA SUGAR CO. FOHALA SUGAR CO K. LYMAN BOND HONOKAA SUGAR CO HONASIAN BELIMFS FOR VILLAGE PESOPT HTL HAMAKUA MILL CO HONOKAA SUGAR CO HONOKAA SUGAR CO
MAPULEHU 542	3046 3541 3547 4394 4778 6138 6190 6534 8549	01 01 01 01 01 01 01	MOLOKAI MOLOKAI MOLOKAI HOLOKAI MOLOKAI MOLOKAI MOLOKAI HOLOKAI HOLOKAI HOLOKAI	1 1 1 1 1 1 1 1 1 1	21 04 21 06 21 06 21 12 21 09 21 04 21 08 21 09 21 09	156 59 156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06 156 44	30 60 12 70 560 878 20 1075 450 700	84	6 H WK 7 A 8 A 9 A 8 A 6 A		KALAUPAPA SETILEMENT W. J. CARSTEN MOLDKA1 RANCH LTO HOLDKA1 RANCH LTO HOLDKA1 RANCH LTO OEL MONTE COPPORATION H S P A LIBBY MCHILL + LIBBY ALOHA AIRLINES PUUMHORU PANCH HOLDKA1 PANCH HOLDKA1 PANCH	KULANI CAMP 70  KULANI MAUKA 76  KULANI SCHOOL SITE 78  LALAHILO FLO 0FF 191-1  LANIHAU 68-2  LAVA TREE PARE 66-1  MANUKA 2  MAUNA KEA BEACH 98  MIOOLE HOLUAGO 68-1  MIOOLE PEN 147-1	5018 0 5021 0 526 0 533 0 546 0 613 0 6180 0 6198 0 6268 0	14 N KONA 12 PUNA	2 19 33 1 1 2 19 35 1 1 20 01 1 1 2 19 2 1 1 1 2 1 1 1 2 1 1 1 2 1	55 18 55 27 55 20 55 41 55 58 55 50 55 55 55 55	8300 5735 2615 1530 650 1760 103 11146 475 1380	6	A A		ST DEPT OF SOCIAL SER  U.S. WEATHER BUREAU ST DEPT OF SOCIAL SEP STATE DEPT OF L. N. RE, KONAE EXPERIENT STATION STATE DIV. OF PARKS STATE DIVISION OF PAPKS MAUNA KEA DEACH HOTEL U.S. MEATHER BUPEAU FOR EXPERIENT STA

"NT I NU						
STATION ZO NO DISTRICT	DRAINAGE TO CORRESPOND THE WAR	SERVER STATION	NO. NO.	LATITUDE LONGITUDE	TEMP TEMP TEMP TEMP TEMP TEMP TEMP TEMP	OBSERVER
MODIFICATION   A 6-07 0 % FAU	10   11   155   30   600   MC    MAWAIIAN   MAWAIIIAN   MAWAII	PANCH CO PAN	A 8393 01 HAMARUA A 8460 04 N KONAA A 8460 04 N KONAA A 8460 04 N KONAA A 8550 02 S HILO A	1 19 54 155 24 5 19 50 155 36 4 19 36 155 36 10 10 51 155 36 10 10 51 155 36 10 10 51 155 36 10 10 51 155 36 10 10 155 36 10 10 155 36 10 10 155 36 11 19 59 155 37 12 10 47 155 31 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 10 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 10 15 155 57 12 15 15 15 15 15 15 15 15 15 15 15 15 15	5 7440 MG 6 6960 MG 1800 7A 2526 7A 2526 MM 2526 7A 2526 MM 305	FURALAU RANCH CO STATE DIV OF FISH-CAME GREEWILL RANCH GREEWILL RANCH GRIEN CONTROL OF TO W, M, SHIPMAN, LTD OILLINGHAM RANCH INC BOARD OF WIR SUPPLY FEDERAL ELECTRIC CORP KUKALAU RANCH CO U.S. COAST GUARO EAHLA BANCH EAHLA BANCH

↑ DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU. 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-KORTH-CENTRAL MOLOKAI: 1-(NO INTRA-ISLAND DIVISIONS) LANAL 1-(NO INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHEASTERN 3-EASTERN REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. 0. Box 3650. Bosolulu, Hawaii, or to any Weather Dureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWAII"

DIMENSIONAL UNITS: Geleem otherwise iedicated, dimensional units used in this bulletie are Temperature in "F., precipitation and evaporation in less. le "Supplemental Data" table directions entered le figures are tens of degrees. Resultant wind in the vector sum of wind directions and speed divided by the eumber of observations

CBSERVATION TIME Data is the "Wombhiy Extremes"; "Daily Precipitatios" table, "Daily Temperature" table, and "Evaporation and Wied" table are for the 24 hours coding at time of observation unless indicated otherwise by reference letters in the Station ledex. The Station ladex shows observation time in local

EVAPORATION is measured in the standard meather Bureau type pan of 4-foot diameter unless otherwise showe by footnote following the "Evaporation and Wind" table was a defined with the contraction and wind table refer to extremes of temperature of water in pan as recorded during 24-bours ending at time of observation

NORMALS for all stations are climatological standard cormals based on the period 1931-1960.

STATION NAMES: Hawaii state key sumbers are included following station mames in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletie.

INTERPOLATED VALUES for moethly precipitation totals may be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supglemental Data" table, "Daily Precipitation" table, "Evaporation and Wied" table, "Seowiall and Seow on Ground" table, and the Station ledex
  - No record ie the "Climatological Data" table and the "Daily Temperature" table is iedicated by no setry
- + And also oe se earlier date or dates.
- ++ Bighest observed one mieute windspeed This statioe is not equipped with ac instrument to measure fastest mile data
- Amount iscluded in following measurement, time distribution unknown
- The letter A "been following station size to "Climatological Data" table, "Daily Pre-spiritation" table, and "Station index", indicates amount carried to the "stotal" column is for the period from last measurement of a proceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for dates of measurement. Where gages are read only once monthly, measurements and on the first of a most har recredited to the last day of the preceding month.
- H Adjusted to a full month
- J "Sugglemental Data" table
- M Dee or more days of record missing, if average value is cetered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage
- T Trace, se amouet too small to measure.
- V Includes total for previous month.

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observatioe made after raie.
  - In Special Colume of Station fast sedicates Recording Bain Gage Station. Bourly procipitation values are processed for special purposes, and are published later to the "Mourly procipitation bates" builting if daily assument are published to lancological Data" builting they are from a separate non-recording gage, except where ledicated by reference 'R'. Such amounts may differ from amounts published from the executing gage in
- MO Gage read once monthly, usually on the last day
- OC Gago readiems at periods varyleg from a few weeks to several months.
- S Storage Precigitation Station. Precipitatioe measuremeets, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Dbservation time is near sunset
- VAR Observatioe time im variable
- WI Gage read weekly or irregularly only.
- WM Gags read weekly and last day of month
- # Thermometers are generally exposed le a shelter located a few feet above sod-covered groued, bosever, this reference indicates that the thermometers are exposed to a shelter located on the roof of a building.

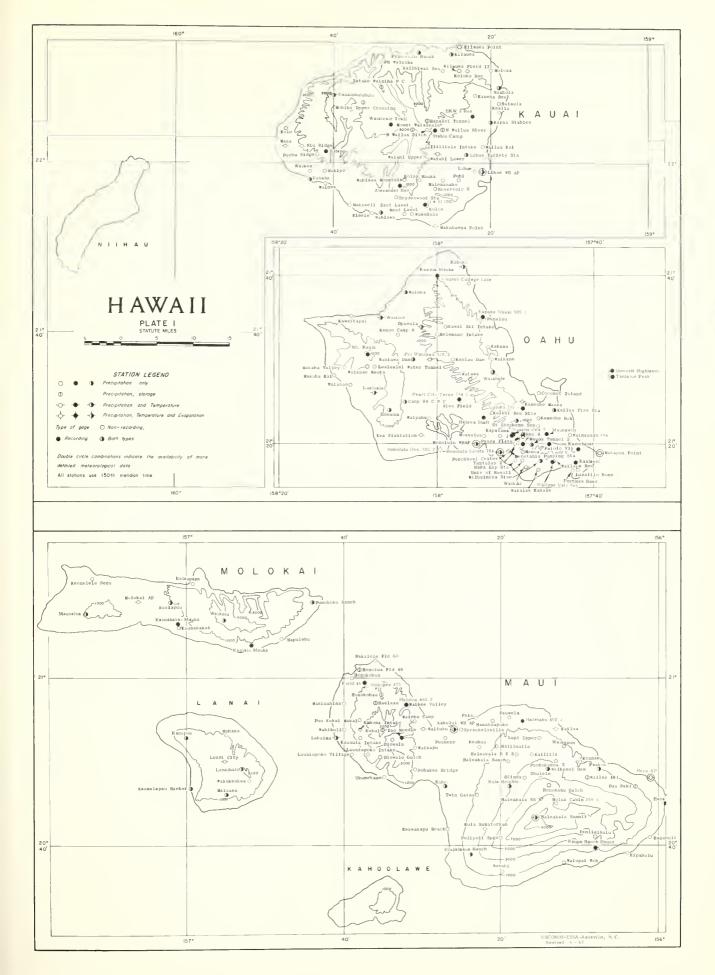
Statioem appearing in the tables with no data were either missing or received too late to be included in this issue.

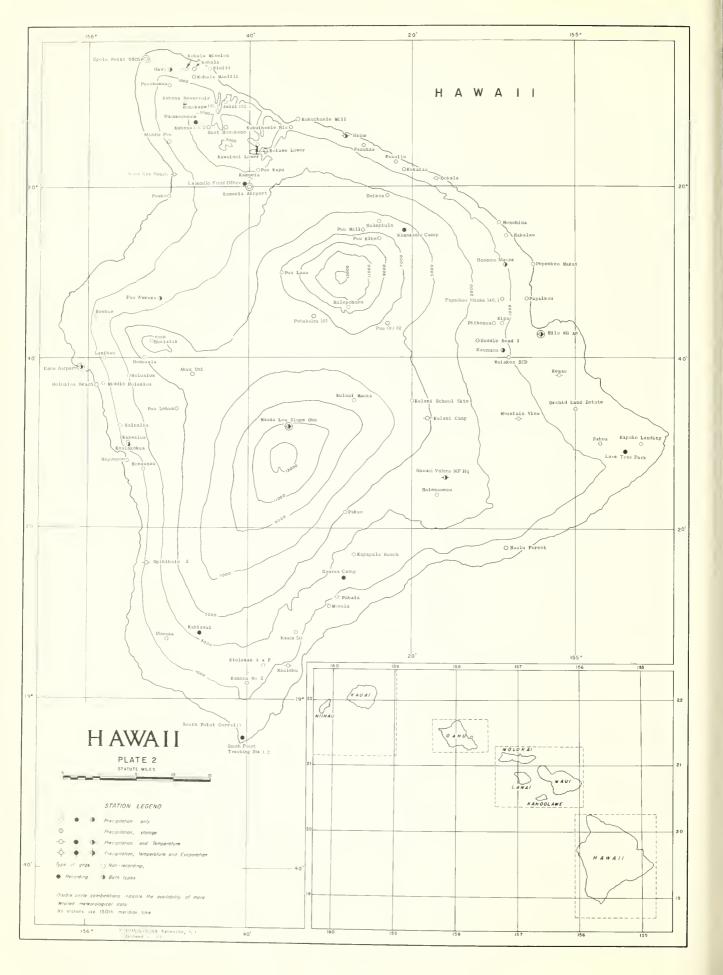
General weather conditions in the U. S. for each month are described in the publications MONTHLY MEATHER REVIEW, CLIMATDLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superinteedent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the history of changes is locations, elevatices, exposure, etc., of substations through 1937 may be found in the publicatioe "Substation Rivetory" for this Histe, price 40 ceets. Similar information for regular Weather Dureau stations may be detailed annual issue of Local Climatological Sate, price 40 ceets. These sublications may be obtained from the Duperisteedeet of Documents the address shown above.

Subscription Price 20 casts gar copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and mosey orders should be sade payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Coverment Priviley Biffice, Manhieston, D. C. 20402.

USCOMM-ESSA-ASHEVILLE-10/1/68-890







U.S. DEPARTMENT OF COMMERCE

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATIONS
ENVIRONMENTAL DATA SERVICE

NOV

1963

HAWAII

JULY 1968

Volume 64 No. 7

CLIMATOLOGICAL DATA

			1	1	Ter	npera	ture			 1					1	15	?H. (	Preci V	pitanon.	0				-
Station					lea					Max	o. of I	Days <b>Min</b>	-1				Day	×	Spo	Sleet		-	of I	_
5.400		Average Maximum	Average	Average	Departure From Normal	Highest	Date	Lowest	Date	90° or Above	-	-		Total	Departure	From Normal	Greatest D	Date	Total	Max. Depth on Ground	Date	ö	.50 or More	1 00 1/4
ISLAND OF KAUA1																				_				
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA F1ELO 17 1135 KILAUEA POINT 1133	Δ Δ	74.7	56.5 72.7	79.3			27		10+	0	0	0	0	3.06 1.84 4.89 6.64 2.83	-	.67	.56 1.30 1.88	18	00000	00000		7	1	
KOLDA 936 LIHUE W8 AP 1020.1 MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	84.0	72.4 69.4	78.2 79.6	1.7	8 5 9 3	31+	66	4+	0 18	0 0	00	00	6.76 1.70 1.87 14.12 10.72	-	1.70 .24 1.31	1.29 .35 1.64 2.30 2.40	23 18 18	.0	00000		6 2	0 1 7	
PUEHU RIDGE 1040 WAH1AWA 930 WAIAHI LOWER 1054 WAIMEA 947	Δ	82.4	66.3	74.4		8.5	10	60	3	0	0	0	0	.99 3.30 10.86 1.04		.57	.65 1.25 1.50	18	.0	0		3 2 I 2	1 1 1 1 1	
15LANO				75.4										5.04					.0					
ISLAND OF DAHU																								
HONDLULU D85ERV 702.2 HONDLULU W8FC 703 KAHUKU 912 KANEDHE MAUKA 78I KODLAU DAM 833	R A	89.0 85.6M 84.I	73.9 73.4M 72.6	8I.5 79.5M 78.4	2.7 1.8 1.9		29	70 67 69	4 5 4	12 0	0000	000	000	.33 .29 1.76 1.92 6.75	-	.15 .13 2.39 3.03	.22 .11 .82 .29	17 23 15	.0	0		1 1 8 10	0 0 1 0 4	
LUALUALE1 804 MAKAPUU POINT 724 NUUANU RES 4 783 DPAEULA 870 PALOLO VALLEY 718	Δ	86.3M 83.6 84.6	74.0 73.8 67.0	80.2M 78.7 75.8	3.6		31+ 19+ 7+	63 72 61	13+ 17	2 0	00 0	0 0	00 0	.24 .17 3.66 2.19 5.15	-	.67 5.01 1.11 5.66	.15 .08 1.00	23	.0	0		1 0 10	0 0 1 1	
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA DAM 863 WAIAHDLE 837 WAIALUA 847	Δ Δ Δ	87.9	67.3	77.6	1.4	91	6 27+	63		5	0	0		1.33 2.33 1.40 3.22	-	7.72 .26	.65		.0	000		3	1 1 1	
WA1K1KI 717.2		87.8	73.2	80.5		91	7	68	4	5	0			.10			.07	1.8	.0	0		0	0	
WAIPAHU 750	Δ			78.9						li		1	,	1.91		.01	. 27	23	.0	0		3	0	
* * * ISLAND OF MOLOKAI											J											H		
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKAI AP 524	Δ	84.1	71.0	77.6		87	27+	68	14+	0	0	0	0	1.81 2.08 .40 1.44	:	.93	1.46 .55 .14 1.17	13	.0	0		2 8	1 0 1	l
ISLANO				77.6								1		1.43					• 0				J	
1SLAND OF LANAI	Δ	79.4	67,3	73.4	2.3	82	5+	65	7+	0	0	0	0	1.45		.27	-67	11	.0	0		3	1	
1SLANO		.,,,,		73.4	.,,									1.45					.0					
1SLAND OF MAUI																								
HALEAKALA 8 E S 434 HALEAKALA RS 338 HANA AIRPORT 355 HONDKOMUA 493	Δ	67.0	48.5 71.2	57.8 79.2			25 25÷	43 68	10+	0 0	0 0	00	0	2.94 .90 3.08 1.26		1.19	1.38 .18 .46	1 I 25 31	.0	0 0 0		6 3 14	0 0 0	
KAANAPALI AIRPORT		88.0	71.8	79.9			22+		24	2	0	0	0	.75			.15	24	.0	0		1	0	
KAHULUI W8 AP 398 KAILUA 446 KEANAE 346 KIPAHULU 258	R A	89.1	68.9 68.I	79.0	1.7		30+		4+	11 0	0		0	8.95 12.80 5.91	-	.01 1.20 7.07 3.62	1.24	31	.0	0000		16	00 00	
KULA SANATORIUM 267 LAHAINA 361		88.0	59.1 70.9	79.5	. 9	79 92	31		29+	5	0	0	0	.00	-		.00		.0	0		6	0	
MAILUKU 392		87.5	73.1	80.3	2.9	90	27+	7 [	29+	3	0	0	0	.96	-	.25	.29	31	.0	0		3	0	
15LANO				74.6										3.11					.0					

### CLIMATOLOGICAL DATA

Continued																			JUL			1961	8
					Te	mper	ature										Preci	pitation					
										P	lo. of	Day:	s _					Sno	w, Sleet		N	o. of l	Days
Station		Average	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	Above W		32° or Below	-	Total	Departure From Normal	Greatest Day	Date	Total	Max. Depth on Ground	Date	.10 or More	.50 or More	1.00 or More
ISLAND OF HAWAII																							
HAINA 214 HAWAII VOLCNS NP HO 54 HILO W8 AIRPORT 87 HUEHUE 93.1 KAINALIU 73.2	R A	84.0 71.1 84.8 79.8	67.0 56.0 68.8	75.5 63.6 76.8	1.4 .7 1.9	80	31+ 5 8		8 26 10	0000	0000	0000	0000	2.34 4.99 7.43 3.91 9.24	- 1.12 13 - 2.39 1.41	1.42 1.66 1.84	14		00000		10	1 2 5	2
KAMUELA AIRPORT 191 KEAAU 92 KEALAKEKUA 26.2 KONA AIRPORT 68.3 KUKUIHAELE HIC 199		76.3 85.7 80.4 84.8M	55.7 66.8 64.3 67.6M	66.0 76.3 72.4 76.2	1.9	81 88 83	3	52	25+ 11+ 1	0000	0000	00000	0000	.92 9.75 7.09	39	.55 1.80 2.03	5	00000	00000		3 17 11	1 8 3	
KULANI CAMP 79 MAUNA KEA BEACH 98 PAHALA 21 POHAKULOA 107 PUAKU 95.1	Δ	66.8M 88.5 81.9	48.1M 73.6 65.1	57.5M 81.1 73.5	<sub>a</sub> 3 .	95	31+ 30 31+		17+ 10+ 14	0 7 0	000	000	0000	8.21 .22 5.21 1.29	3,69	2.50 .09 3.34 .71	5 14	.0	0000		15 0 4 3 0	5 0 2 1 0	0
PUU WAAWAA 94.1 UMIKOA 118 WAIAKEA SCO 88.2	Α													1.67 .88 12.37	43 - 2.11	.84 .55 3.06	14	.0	0		4 2 18	2	0
ISLAND				71.9										4.53				.0					

### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 95° ON THE 30TH AT MAUNA KEA BEACH 98, HAWAII

LOWEST TEMPERATURE: 35° ON THE 24TH AT MAUNA LOA SLOPE OBS. HAWAII

GREATEST TOTAL PRECIPITATION: 14.13 INCHES AT WAHIAWA MOUNTAIN 990, KAUAI

LEAST TOTAL PRECIPITATION: .00 INCH AT 10 STATIONS

GREATEST ONE-DAY PRECIPITATION: 6.27 INCHES ON THE 5TH AT MIDDLE HOLUALOA 68.1, HAWAII

	1							_						Dave	of M	onth														HAWA1 JULY	1	1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	13	of M	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15LANO OF KAUAI																																
ANAMOLA 1111 ARYOFSWOOD STA 985 AREAST LAWAI 934 ARELEELE 927 AALAULA 1110 AA	6.1	1.12	.03 .26 .12			:			.35 .39 .39 .34	.01	.04	.18 .43 .53 .20	.30 .27 .06	•	:	.26 .27 .60 .07		.03	-15 -29 -32 -44 -72	.03	:	:	.07 .43 .42 .09	.23 .30 .42 .07	.43 .50 1.02 .57	.02		:	•	.25 .04 .10	.02 .02 .02	.03 . .28 . .60 . .09 .
MALENANAHO 1006 HUKIPÜ 945 LITILIULA INTAKE 1050 1NTAKE WAINIHA PC 1086 A KALIHIWAI RES 1131	13.7	.33	.32	.02	1.20	1.00	.20	.05	.72	.20	*18 *	.56	.19 .62 2.00	.64	.34	.35 .03 1.29 .45	*	.12	1.08	.25	.35	.65	.35 .12 .26 .70	.59	.57 .52 1.40	.44 4.25 .04	.05	.30	-06	.09 .27 .11	.05	.64
KANALDHULUHULU 1075 KANEHA RESERVOIR 1092 AKAPAA STABLES 1104 KEALIA 1112 KEKAHA 944	4.8	.50	.09 .35 .03	.04	.08	.05 *	.02	.05	.02 .40 .47 .21	.03 .13 .04	.02 .04 .06	.11 .28 .10	.11 .25 .10	*13	.02 * *	.57 .12 .17	.01		.12 1.12 1.30 .5 *	.05	:	:	.03 .37 .10	.15 .75 .46		.01		:	:	.25 .70 .10	.03	.02 . .28 . .13 .
KILAUEA 1134 KILAUEA FIELO 17 1135 KILAUEA POINT 1133 KOLO 1033 KOLOA 936	2.8	1.12	.04		.15	.06		.25	.62 .44 .08	.07	.18	.07	.12	:	:	.37	.02	.46	.78 1.88 .0 .5 1.2	.25 .02 .10	. OR	.10	.37 .83 .24	.12 .30 .65	.69 .44 .05 .22	.10 .06 .03	.02	.05	.05	.05 .04 .02	.11	.13 .41 .
KOLOA MAUKA 994 KOLOKO RES 1137 KUKU1ULA 935 LIHUE VARIETY STA LIHUE 1020	5.31 3.01 4.0	1.17	.02 .01	.02	:	• • • 28			1.26 .26 .44 .30	.07	.01	.63 .06 .14 .22	.57 .28 .19 .32	* * *		.47 .38 .25 .14	.02	.24	.51 1.00 .03 .34	.07	.03		.65 .32 .18 .08	.58 .55 .18 .84	.71 .32 1.09 .66				:	.21 .05 .01 .01	.18	1.12 .42 .15 .23
LIMUE W8 AP 1020.1 RAKAHUENA POINT 940.1 AMA AWELI 965 MANA 1026 MOHIMI UPR CROSS 1083	1.7 1.7 .4 1.8 2.7	.05		.03	.02	.04	. O B	.01	.10	.01	.06	.08 .01 .04	.09 .22 .01	.01 .13 .01	.06	.04	.02	.04	.2 *	.05	Т	.04	.26	.35 .02 .28	.11 .44 -19		•10	.02		•01	T	.05 .02 .01 .01 .21 .
MOLOGA 1145 MOUNT WATALEALE 1047 NIU RIOGE 1035 N WATUWA 01TCH 1051 APH WATNIHA 1115	2.4	1.76	*	.44	:	* . 22	-	.02	.35	.22	.13	.50	.07 .62	* - *	.05	.18	-	.03	.22 .91 2.3 2.32	.20	•	• - • •06	.18	.30	.12 -18 1.50 2.40	- 40	.16	•	:	.72		1.00
PRINCEVILLE RANCH 1117 PUEHU RIOGE 1040 PUHI 1013 RESERVOIR 6 1004 MAHIAMA 930	7.31 .91 3.8 7.30	1.00		.05	:	.14	.02		.10 .13 .31 1.37	.03		.07	.14	.21		.26 .45 .59	.10		1.91 .60 .23 1.53		.25	.06	.04	.58	1.17 .21 .35 .40	.01			.01	.11 .07	.03	
MAHIAMA MOUNTAIN 990 MAIAHI LOWER 1054 WAIAHI UPPER 1052 WAIAWA 943 WAILUM KAI 1065	14.1	.27	* .35 .09	٠	* 1.15 2.15	.85	.02	.10	.05	.10	* .03	.60 .85	.62	.63 .38	* •35 •40	.55	.05	.03	* 1.50 2.97	.11	.27 .95	.55	* .05	• • 50 • 77	.90 1.10	. 71	• 02	.19	.02	* •11 •23	.01	14.13 . .68 . .80 .
WAIMEA 947 WEST LAWA1 931	1.0	.01	.02						.27	.0.	.03	.22	.09	.03		.25		.01	.53	.03			*10 T	.40 T	.42	.03				.02	.03	.08 .
ISLAND OF DAHU									***		***																				***	
ALEA FIELO 625 761 BERETANIA PUMPING STA CAMP 84 807 CHURCH COLLEGE LAIE COCONUT ISLANO 840-1	. 31	.07			٠	٠			.01 * .13	.01	.06	.25 .03 .03 .31	.01	-10 -10 -07	.21	.04		.01	.2	.01	.04		.03	.46 .08 .57 .40	.18 .04 .01	.10	.02		.02	.02	.01	.03
EWA PLANTATION 741 MELEMANO INTAKE 881 MOKULOA 725.2 MONOLULU DASERV 702.2 HONOLULU W8FC 703	.6					٠		٠	.01	.o.	* *	, 01	* * T	.ID .04	.02	.50 *		.11	.21	* *	: T	* *	¢ +	.05 .94 .43 .07	-01 *	:	* * T	:	: T	.06 .03	* * T	4 +
HONOLULU SUBSTA 704 H S P A EXP STA 707 KAHANA 883 A KAHUKU 912 KAILUA FIRE STA 791.3	.3 .6:			٠			:	:	.24	.05	.02 .08 .04	.08 .11	.01	.01 .04 *	.04 *	3.44		.10	.10	T .	*02 *	* * * * * * * * * * * * * * * * * * * *	.98 .01	.05 .21 .82	* 14 T	.01	.02 • .07	.06	٠	.05	.02	.06
KALIHI RES SITE 777 KAREOHE MAUKA 781 KANEOHE RANCH 838 KAPALAMA 773 KAWAIHAPAI 841	2.7· 1.9· 1.2· 2.3·	.08	.06							. 02	.04	.20 .18	.02	.10	.22	.29	.20	.52 .12 T	.18 .15	.02 .01 T	.08 .10	.02 .02	.02 .01	.66 .27 .50 .85	. 2 1	.04	.06	.02	.06	*01 *	.47	.08
KAWAI IKI INTAKE 880.2 A KEMOO CAMP 8 855 KOOLAU OAM 833 LUALUALEI 804 LUALUALEI WTR TUNNEL	4.0 .8 6.7	.03		٠	٠		:	:	.02			.01 1.42	* 01	* * *44	.08	.07	٠	.15	.0	.08	.08	.10	.17	.28 1.85 .15	* .30	.01		•		.63	.09	1.32
LUNALILO HOME 724.2 MAKAHA KA1 796 A MAKAHA VALLEY 800.1 MAKAPUU POINT 724 MANOA 712	.3	.03			ľ				.01		.16	T . 28	.10	.06	.27	.07	.07	.17	.17 .11 .02	.05	.13	.04		.25		.15			•	.04 T	.02	.05
MANGA TUNNEL 2 716 MOANALUA 770 NUUANU RES 4 783 NUUANU RESERVOIR 5 775 A	5.41 1.00 3.61 4.21	.04							.02 † .18	.08	.02 .04 .19	.54 .11 .22	.02 .01 .04	.44	.26 .08	.04	.04	.66	.0-	.30	.02	.12	.41	1.00 .65 1.00 1.22	.17	.64	.06		.04	.02 .03 .02	.32	.38
OPAEULA 870  PALOLO VALLEY 718 PAUDA FLATS 784 PORTLOCK ROAO 724.4 PRI WAHIAWA 820.2	5 · 1 8 · 9 · 4 1 · 3	.04				.14		.14	٠		.02	.34	.07		.28	.04	* * .04	.02 T	.0	3.18	.02	.04	* .3R .03 T	2.39	.04	.64 .60	.26	.03	.32 .48 .01	.02	.12	.42
PUNCHBOWL CRATER 709 ST STEPHENS SEM 788 TANTALUS 2 780.5 UNIV OF HAWAIL 713	1.0	.13	.01						.01 .13 .01	.07	.07	.21 .10 .03 .47	.04 .09 .15	.04	.01	.56 .10 .33 .07	.00	.06 .01 .05 .24	.1: .14 .25	.01	.10	.03	.27	.19 .15 .77 .19	.41	.03	.05	.03	.01	.06 .03 .38 .08	. O 3	.06
WAIAHOLE 837 WAIALAE KAMALA 715 WAIALAE KAMALA 715 WAIALAE 798	3.2	.17					.05		.07	.05	.05 T	.10 .14 .02 T	.01 .01 .02	٠		.64		.11	.16 .07 .06		.20	.05	.16	.60	.30	.02	.16	.01		.32		.37
WAIANAE MAUKA 803  WAIAHA 836  HAIKANE 885  MAIKIKI 717.2  WAILUPE RESV. 723.2	2.0	*	:	.14		:	.03	:	* :12 T	:	.03	.01 .20		.05 * *	:	1.80	:		.07	:	*		* .64	T	* * * * * * * * * * * * * * * * * * *	.23	:		:	2.09	*	* * * * * * * * * * * * * * * * * * *
WAIMANALO 794  WAIMEA 892 WAIPAHU 750 HILHELMINA RISE 721	2.3	.25									* <sup>01</sup>	.13	.19	* .08	.08	. 35		.01	.07		•	•	.17	.56 .27 .34	.38	.02			. C-8		.04	.32 .

See reference notes following Station Index

- 85 -

Station	Total													Dan	OF B4	ansh																
ISLAND OF MOLOKAL		ì	2	3	4	5	6	7	8	9	10	11	12	13	of M	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
A AUPAPA 56: NAUNAKAKA 1 536 A EONELELE PENS 551 A UALAPUU 534 A APULEHU 542	1.89 .00 .00 1.81 2.08	.01	٠	٠	•	1.46	•	.05	.05	.20	.14	.02	.06	.55	٠	٠	٠	۰	.13	.30	٠	٠	٠	.07	.04	.04				.06	.20	.20
AUNALOA 511 A 0.0461 AP 524 UUONOW U ANCH 542.1 AIKULU 540 A	1.00	1.10	:		*	1:17 	•	.12	†14 -	•20 •	*10	.15 v	٠	٠	T •02	T .05	v	.05	٠	٠	٠		.20	.03 .06	.01	.10	٠		٠	.56		.20
A:«EPUU 890  A:«A:AE CITY 672  ANAIMALE 684  AAAI CATA	1.19 .62 1.45 3.03	.03	٠	٠	Ť .45	• •21 •18	• • •03	• • T	:11	.01		1.13 .67 1.91	.22		*01	.08		.04	.43	.04			•	.04	.02	.05	* 30			•		.01
ALANA 694 A ALAUEA 676 A ALAKEAKUA 685 A ISLANO OF MAUI	.86 1.35	٠	•			• 1.05		•		:	:	.82	:		:	.01	•	*	.04				.02	•						.07	•	.11
UMAH1 252 A ALEAKALA B E S 434 A ALEAKALA RANCH 432 A ALEAKALA RS 338 ALEAKALA SUMMIT 338.~	1.50 2.94 .62 .90 1.45	٠	٠		.01	1.30 .29 .04 .01	05	• Т	.10		* .01	.12 • .18	.13	.02 *	.01 • .07	* 16	*	.05			.09	.02	*01 * T	.10 .26 T	.55		٠		.03	.09	.03	1.38 .58 .04
ALIIMAILE 423 AMAKUAPOKO 485 ANA 354 ANA AIRPORT 355 ANAHULI 281	1.55 2.05 2.51 3.08 6.56	.01		.02	7 .16	.15	.03	.11	.03 .02 .07	.05	T .02	.08 .07 .29 .18	.03	.03 .04 .07	• 11 •16 •20 •50	.02 .05	.29	.11 .09	T .19	.19	.01 .15 .11	.04 T	.02	.20 .07 .36 .30	.05	.26	.02 .18	.20	.13 .14 .25	.06 .19 .11	.09 .26 .11	1.05
AANAPALI AIRPORT	.93 6.70 1.26 2.60 .25	.04			.28	.06	:	•	.06		• • • • • • • • • • • • • • • • • • • •	.09	11	•	:	.14		.02	•		•	.65 e T	.10	.13	.12	•	.06	•	*	.05	.02	.02
AHOMA INTAKE 374 Δ AHULUI 48 ΔP 398 R Δ!LI1L! 436 Δ Δ!LUA 446 Δ ΔΙΔΙΔ 1ΝΤΔ*Ε 375 Δ ΕΛΗΠΑ 410	3.97 .42 6.62 8.95 .86	•	.01			*			.01	.01	.04	.02	.6=	.02	1.01	.33 .21	.01	* .09	.01	.50 T • .29	* * .28	T .04	.20 .24	.03	* .90	* .27	.15	.01	.33	.07 .68	.53	1.24
EANÁE 346 A 1 EANÁEAPU BEACH 260.2 IHEI 311 IPAHULU 258 JUA HEIGHTS 323.2	12.80 .05 .00 5.91	•	•	٠	.02	.05	•	٠	.01	.26	.04	.03	.37	.31	.01 .43	.16	*	.16	٠	.07	.16	.15	.13	*	1.05	.13	.50	.14	.13	.44	.07	.36
ULA SANATORIUM 267 AHAINA 361 AHAINA 361 AUNIUPOKO INTAKE 376 A AUNIUPOKO VILLAGE 372 A UPI UPPER 442 AHINAMINA 466 A	2.14 .00 1.11 .00 9.50 1.28	.14			.55	.82 •	.02	.07	.20	.01	•	•	T .		• 07	.02				•	.10			*	.30					•		9.50
AKALELE FLO 60 497 A LINDA 332 A LUMALU 296 LUMALU GULCH 377 A AAKEA 350	1.98 1.93 .00			٠	.89		.0%	T •	.10	T . 0 =	*	.13	.0	* * * * * * * * * * * * * * * * * * *	.01 .01	.68 7	0.02	* .24	*	* .47	•	* T	•	.20 T	.01	* T	*	.12	• T	.57	.01	.33 .24
ALWELA 490 A OHAKEA BRIDGE 307.2 OLIPOLI SPRINGS 267.2 A UNHOKANDA 2 343 A	.82 2.80 3.78 .19 5.54 12.60	.30	:	:	.19	•	:	•	.08	.65	.03	.14	.34	.13		.02 1.15 .57		.05	.71	.02	.08	.01	.01	.34	.34	.12	.02	:		.56	.15	
UUNENE 396  PRECKELSVILLE 400.2 WIN GATES 261.3	3.00 .31 .61 .00 2.07		•		*				.01			.03	.01	•		•								•		*			•		.01	
AHIKULI 364 ALEHU CAMP 484 ALHEE VALLEY 482 ALKAMOI 449 A. I	.00 1.00 1.36 11.60 10.06	.23	٠		.23			* T	.02	.05		.18	.09			.02		.02							.1=		Ţ				.11	.33 .64
A:XAPU 390 A:LUKU 392 A:OPA1 RANCH 256 A	.47 .96 .42	.06			.37		.03		.02	.03		.03	.00	.11	.08	.01	,	.13	.01	.01	.22	.15	.01	.03	.6	.05	.40	.01	.10	.04	.01	.10
«IN! 182.1 A	2.40 4.72 8.34	*17	:			•	:	*	.49		.06		* 17	:	:	:	•	.50	.51	* 11	:	:	.22	• 1.42	.25	.18	•		:	:	.18	2.40
Δ1ΝΔ 214 Δκ.Δ.Δ.Ο 142 Δ.ΕΜΑΟΜΑΟ 52 Δ Δ.ΕΡΙΟΙΑ 117 Δ	2.62	.02	:	. 4=	.36	:		•	:	•01	.32	.42	.03	.17	1.42	:	.04	.23	.01	.33	:	.55	.01	.24 .28	* 11	.14	.07	:	.05	.03	.05	2.67
AMAIL VOLCNS MP H0 54 MH 1 108  1: 0 M8 AIRPORT 97 9: UALOA 70 A 0: UALOA 8646H 68 A	1.75 4.99 2.91 7.43 9.35 6.33	.03	Ţ	. O #	.29 T	* 3.67	T	* 1.23	.02	21	.23	.09	.02	.05 1.05		.08	.07	1.75 .08 .05	.20	.30 .06	•49 •14	:17	.10 .04	.11 .80	.05	.09	.02	.02	:16	.31	.03	.75 .15
0 AJ4AU 27 ONOHINA 137 ONOKANF 181.1 ONOMJ MAUKĀ 130 ONUĀULĀ 71 A	5.85 10.76 3.00	.01	•	.18	.01	.40	.30	.52	.18	•10	.03	.24 .20	•10 •13 •12 •20	* 2 2 *	3.88 3.70	.02 .85 2.48 1.71	.07 .03	.25	.50	.06	*10 *	.03	.12	.75	.02 .22	.08	.01 .05	.02	.03	.39	.03	.36 .13 .42 3.00
AALA [K] 12 AAKAGA 29 AAKAGA 29 AAALGA 29 AAALGA 29 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	1.86 3.91 5.25 7.19 9.24 5.22 2.42	.28	.14	٠		1.75	.04 2.50	.21 .07	1.09	.07	.16 .33 .13	.02			2.00	.49	.01 .04 .10	.55 .53 .61	.0% 1.1 4 1.3 -	.20	.05	* • •11 •2-č	.29	.15	.0.5	:	.24	.06 .68	1.50	.04	2.54	1.86

Continued																		221													HAWAI		1968
Station		Total													Day	of M	lonth																
		H	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAMUELA 192.2 KAMUELA AIRPURT 191 KAPAPALA KANCH 36 KAUUHU LANDI4G 93.5 KAUMANA 88.1	A	1.01 .92 3.89 7.00 10.39		. 05 *		.10 .11 *	.16 .55	T .29	*	2.25		.05	.05	.03 T .05 .22	• 04	.06 T 	.27 .07 .15		.13 .12 .52	.08 .07	*02 ***********************************	1.01	T .07	.12 *	.01	. 04	* .20	.10 1.91 .07	:	* * * * * * * * * * * * * * * * * * * *	.02	.06	.116
KAWAINUI LOWER 193 KEAAU 92 KEALAKEKUA 26.2 KEMENA 101.2 KIJLAKAA A F 6	Δ Δ	9.92 9.75 7.09 4.I0 12.00		*	.03		.69 2.03	.88	* :11 *	* T *	* 02 T *	* .05 .47 *	.24 .02	2.30	* 14 T	* 1.52 *	* 1.80 *	.17	.85 .35 *	* .38 1.68 *	4.80 .27 .39	.67 .03	*39 T	.08	.5R .14	.02 T	* •15 *	2.13	.02 .45	* .22 .08 *	* .23 .11 *	.13 .01	.63 4.10 12.00
KIPA 89.2 KOHALA 179.1 KOHALA MAULILI 176 KOHALA HISSION 175.1 KOIAWE LOWER 196	Δ Δ Δ	12.30 4.08 3.58 4.77 4.51	.02	*	• 0 2	.25 .07	*	:	* * *	.05 .07 .28 .03	.12 .01 T	.16 .0I .05	* 19	.21 .37 .21 .37	• I 2 •	0	2.70 2.00 1.37 .83	.07 .10 .07 .16	.45 .04 .03 .06	.56 .03 .03	.40 .10 .11 .13 2.52	*44 * * *04	.28 * • .02	.07	1.01 .82 .77 1.02	.42 .01 .02 .01	.07	.05 T I.25	:	.07 * * .07	.22 .03 .22 .06	.01 .01 .09	.87 .38 .18
CONA AIRPORT 68,3 CONA VILLAGE 93,8 CUKAIAU 222 CUKUIHAELE HIC 199 CUKUIHAELE HILL 206	Δ	.17 3.69 1.46 1.45				.05	.10	.02	.01	Ť		Т		.01 .02 .01		2.85	.50 .40 .70	,10	.10	.02 .02 .12	.05 .01 .01	.03 *	.01	.07	T .09		.01		-	.85	.10 .12 .02	T	.10 .05 .06
ULANI CAMP 79 ULANI MAUKA 76 ULANI SCHOOL SITE 78 ARIMAU 68.2 IANUKA 2	A A	8.21 2.84 4.69 13.29 5.99	.10	÷03	.40	:	.25 * .19 3.87	.96	* 34	.65	* T	* .83 .05	.24	.1=	*37	2.50	1.64 .71 .15	.02 +	* 11 * .68 *13	.20 .01 *	.12	• 52 • • 70	.10	.17 .15 .47	.30 * *	.24 * * .29	.04 .23	* 02	.03 0 4.50 .98	.115 e e .25	.68 * .40 2.47	.28	.68
AUNA KEA 8EACH 98 AUNA LOA SLUPE 08S IOOLE HOLUALOA 68.1 IUDLE PEN 147.1 OAULA 18	A A A	.22 i.36 11./8 .00 4.80	.01 #		T	.04	.09 6.27		*02			1.76				.26		* 02	*07 T 1.10	.44	. 2 I	.07		٠	T .04		.52	+33 +08	•10	٠	1.70	.11	.08 *
OUNTAIN VIEW 91 MALEHU 14 MAPOOPOO 28 MAULU FOREST 38.6 DULII 179	Δ	13.60 2.99 5.81 4.68 4.61	.26	T *	.04	*14	.02	:	:	.14	.03 T *	* 11	* 62	.3	* 21	2.44 I.58 * 2.64	2.87 .65 .18 .38 1.94	.10 T .06	.99 .41 *	.02	.38 .01	.89 • • •70	.52	.10 .09 1.97	.43 *	.26	.27	* 33	*02 *	.26 *	.27 .02 .48 .11		1.34
ONALA 223 PINIMALE 2 24.1 RIMINO LAND EST 91.5 AAUMAU 217 AAUILO 221	Δ	5.57 3.44 8.30 1.97 2.81	*	*	.01	* <sup>36</sup>	.51	•°1		*	. 31	T .03	.01 .11	.04 .45 .80		3.95 * 1.62 2.40	.42 * .07	* 01	.06	.12	.09 .I1 4.67	**************************************	.01 .03 *	.03	.55 .09 .17	.01		.66	*0 k	.27 •	* .01	.04	.10 .02 *
AHALA 21 AHDA 65 AKAO 37 APAIKOU I44.1 APAIKOU MAUKA 140.I	Δ	5.21 10.95 4.95 7.68 12.27	*	٠	.05	1.12 :17 •01 .08	.02	* 01	*07	• •20 •17	.09	.05 • .11	.28 .20	.33 .23 .31	9	2.00		.16 .06	.06 .76 *	.02 .75 *	.95 * .28	1.00 * .37	.5T * .08	.12 * .14	.68	.01	.31	.09 • 02 .27	.02	.2I * .01	.03 .22 *	4.95	.36 * .40
EPEEKEO MAKAI 144 IIHONUA 89 OHAKULOA 107 UAKO 95.1	Δ	6.79 15.60 1.29	.01	*	.10	*10 *	*	.41	٠	*	•	• 0 1 •	. 35	.08	, 2 O	2.30	.70	.16	.27	.36	.23 *	* * .71	.59	. 21 *	*31	٠	.20	*	* 17	•01	*21	* 12	.27
UU KIHE 120	Δ	3.58	*			*		*	*	*	*	*	*	٠	*	*	*	*	*	*	*	*	*	0		٠		*		*	*		3.58
UU LAAU 102.I UU LEHUA 73 UU MALI 113 UUUKUMAU 167 UU UU 82	A A A	2.19 4.10 1.83 2.02 7.01	*	:	*	* * *	*	:	*	.31 .03	* * * * * * * * * * * * * * * * * * * *	* * *	.05 .20	.14 .15	:	* * * 1.95	* * .60	. OI	* * * .05	* * .02 .38	* * .01	* * * *45	* * * * * * * * * * * * * * * * * * * *	* * * .05	* * .40	.02	* 0.8	* * .0I	*	* * * *	* * *16 *55		2.19 4.10 1.83 .07
UU WAAWAA 94.1 ADDLE ROAO 1 84 GUTH POINT CORRAL 3 M(KOA 118 POLU POINT USCG 159.2	A A	1.67 12.91 1.31 .88 1.89	*	*	*	* • .19	*70 *	.23		*	.02	.05	* *	.01	.02	* .44 .55	.07 .28 .07	• • • • • • • • • • • • • • • • • • • •	.06	.50	9.10 #	.10 • .36			* *	*	* * * * * * * * * * * * * * * * * * * *	2.00	*	* * * .01	* 11 * * *03	.03	* •
ALLAKEA SCD 88.2		12.37			.03	.23	.19				• I 1	.12	.13	.0		2.38	3.06	• 11	.60	.86	.68	1.27	+15	. 34	. 54	.03	.04	.04		. 20	. 44	.07	.67

# SUPPLEMENTAL DATA

		(	Win	nd m.p.h.	)		Relati	ve hum	idity ave	rages -		Numb	er of de	ys with	precipi	Itation			raet
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI	OIAN TI 2 PM	ME 8 PM	Trace	.0109	.1049	.5099	1.00-1.99	2.00 and over	Total	Percent of posmble sunshine	Average aky cover sunrise to su
HILO, HAWAII, WB AIRPORT	14	1.3	5.7	18	E	24	87	76	69	83	4	3	14	3	2	0	26	39	8 • 1
HONOLULU, OAHU, WB AIRPORT	6	11.1	12.6	3∪	NE	22	73	67	53	68	12	5	1	0	0	0	18	71	6.3
KAHULUI: MAUI: WB AIRPORT	5	12.3	13.6	3∪	Ε	28	84	74	56	74	7	5	1	0	0	0	13	70	6.6
LIHUE + KAUAI + WB AIRPORT	6	9.1	10.6	27	NE	17	87	80	70	84	4	13	6	0	0	0	23	64	7 - 4

# DAILY TEMPERATURES

Section (1986) 1. Section (198							_				DA	IL.	Υ '	TE	MP	EF	RA'	ru!	RE	S											HAW J	AII ULY		1968
Section of tentrol   Section	Station					_													-	10	10	00	01	00	00	04	0.5	00	07	00	00	20	21	di
AND MATERIAL PROPERTY 1233 1035 103 103 103 103 103 103 103 103 103 103			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	44	23	20	21	20	23	30	31	
Set Minimizes and Minimizes an	ISLAND OF KAUAI																																	
ALTHOUS PROVIDE LEASE AS ALTHOUGH SEAR AS ALTHOUGH SEAR AS ALTHOUGH SEAR AS ALTHOUGH SEAR ALTHOUGH S	KANAL HULUHULU 1075																																	74.7 56.5
Export of the time of time	KILAUFA POINT 1133	MAX	86	8.7	86	87	87	87	88	86	88	87	86	87	84	86	88	88								83								85.9
	LIHUE 48 AP 1020.1	MAX	83	8 3	83	84	8 3	84	83	84	84	84	8 4	84	84			84																84.0 72.4
**************************************	MAKAHUENA POINT 940.1	MAX	8.5	87	87					.,	87																							86.8 74.1
Second   S	MANA 1026	MAX							91 71																									89.7 69.4
A SAME TRANSPORT CHANGE STRANG	NIU RINGE 1035																																	85.2 65.0
EXAMPLE OF CHAMPLE STAT	MAIAHI LOWER 1054	MAX														80 68																		82.4 66.3
EACH FLACT AT 130 741 100 741	• • •																			1														
MINE OF ST ST ST ST ST ST ST ST ST ST ST ST ST	ISLAND OF DAHU																																	
	EWA FLANTATION 741																																	88.0 70.1
AMERICAL FIRST STATE OF THE PROPERTY OF THE PR	HONOLULU WAFC 703																																	89.0 73.9
MAX 19 10 10 10 10 10 10 10 10 10 10 10 10 10	HONOLULU SUBSTA 704																																	85.2 76.0
HAME OF PAIL ASSISTANT OF PAIL AS A SERIE OF SER	KAHUKU 912																																	85.6 73.4
MAX POLITIFICATION TO 10 03 72 73 05 73 75 75 77 77 77 77 77 77 77 77 77 77 77	KANEOHE MAUKA 781		85 72																										82 74	8 2 7 4	85 75			84.1 72.6
PALLULA BYO  MIX. 72 7, 73 7, 74 73 73 74 73 75 75 77 73 73 73 73 75 73 73 73 73 73 73 73 73 73 73 73 73 73	LUALUALEI 804								65																									86.3 74.0
HILLAN BZOLZ  MAX 80 80 90 00 80 90 80 90 80 70 90 70 70 70 70 70 70 70 70 70 70 70 70 70	MAKAPUU POINT 724																																	83.6 73.8
## ALELIA AR S 338   MAX   05   07   07   08   08   08   08   08   08	OPAEULA 870																	83 69				87 69												84.6 67.0
HAIN F LAMAI CITY OTZ  MAX  77  70  81  82  83  87  87  87  87  87  87  87  87  87	PRI WAHIAWA 820.2														86 70															88 70		87 70		87.9 67.3
#ALEANALA SUMMIT 338-6 MAX 58 50 50 50 50 50 50 50 50 50 50 50 50 50	MAIALUA A47																												92 70	89 71				88.4
ISLAND OF MILDRAI  MAX 87 86 85 85 82 86 84 84 84 86 84 83 82 83 83 83 85 86 84 83 82 83 83 83 84 87 70 70 70 70 70 70 70 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 70 71 69 69 72 73 74 71 72 71 7	WAIKIKI 717.2																								86 74			87 71						87.8 73.2
HOLDHAI AP 524  MAX 87 80 85 85 85 92 84 84 84 85 85 85 92 99 87 70 70 70 70 70 70 70 70 70 70 70 70 70																																		
MIN 72 69 69 70 70 70 70 72 72 72 73 74 69 68 68 74 72 74 69 70 70 70 70 74 71 72 70 71 69 69 72 75 74 71.  ***  ***  ***  **  ***  ***  ***  *	ISLAND OF MOLDKAI																																	
ISLAND OF HAUI  MAX 79 79 81 82 82 79 79 79 77 79 78 78 80 79 79 70 70 60 67 65 68 66 67 67 68 66 67 67 68 66 67 69 67 69 67 67 68 66 67 69 67 69 67 67 68 68 68 68 68 68 68 68 68 68 68 68 68	MOLOKAI AP 524		87 72		69	85 69	82 70																											84.1 71.0
LANAI CITY 672  MAX MIN 67 66 67 69 87 69 79 79 79 79 79 79 79 79 79 79 79 79 79																																		
ISLAND OF MANI  MIN 67 66 67 69 67 65 68 66 67 67 68 68 66 67 67 67 67 67 67 67 67 68 68 68 67 69 68 67 69 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 69 67 69 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 68 68 68 67 69 67 69 67 68 68 68 67 69 67 69 67 68 68 68 67 69 67 69 67 69 67 68 68 68 67 69 67 69 67 69 67 69 69 69 69 68 68 67 69 67 69 69 68 68 67 69 67 69 67 69 67 69 69 69 68 68 67 69 67 69 67 69 67 68 68 68 67 69 67 69 67 69 67 69 69 69 68 68 68 67 69 67 69 69 68 68 68 68 68 68 68 68 68 68 68 68 68																																		
ISLAND OF HAUI  HALEAMALA RS 338  MAX 65 67 68 66 65 67 67 68 66 65 67 67 67 67 67 67 67 67 67 67 67 68 68 68 68 68 68 68 68 68 68 68 68 68			79 67	79 66	8 1 6 7	8 2 6 9	8 2 6 7	79 65	79 65	79 68	79 66				78 67	78 66	80 68	78 68	8 1 6 8	79 67	80 67	80 68												79.4 67.3
MALEANALA SUMHIT 338.4  MAX 80 80 80 81 81 82 82 82 82 82 81 82 80 80 80 87 87 70 70 70 70 70 70 70 70 70 70 70 70 70																																		
MIN 44 47 51 47 45 48 45 50 43 43 43 46 46 51 52 46 53 52 45 47 48 51 49 50 53 52 46 47 53 86.  #ALEANALA SUMMIT 338.4 MAX 87 85 879 59 59 40 60 60 60 55 56 52 55 54 60 51 52 46 57 58 68.  #ANALEANALA SUMMIT 338.4 MAX 87 86 86 86 86 86 87 971 69 70 70 69 70 73 74 72 73 71 72 77 73 76 71 70 73 74 71.  ***AMAMAPALI AIRPORT MAX 87 86 88 88 88 88 88 88 88 88 88 88 88 88																																		
MIN 42 41 42 45 42 45 38 41 45 38 38 43 42 43 45 50 49 48 45 41 42 40 39 43 43 43 42 42 40 39 42 40 40 40 40 40 40 40 40 40 40 40 40 40		MIN	44	47	51	47	45	48	45	50	43	43	48	46	51	52	48	72 53	69 52	66 45	67 47	66 48	51	68 49				68 47						67.0 48.5
MAX 87 86 87 87 97 17 72 68 8 88 88 88 88 88 88 88 88 88 88 88 8		MIN	42	41	42	45	42	45	43	41	45	38	38	43	42	43		50	49															56.9 42.7
MIN 69 67 69 72 69 69 71 73 72 71 72 74 73 73 75 72 73 70 74 72 75 76 74 65 72 71 72 71 73 71 76 71.  KAHULUI M8 AP 398  MAX 88 90 87 87 93 86 87 91 90 88 89 88 88 88 89 93 92 89 89 89 89 88 88 90 91 92 90 89 90 88 86 89 89 89 89 89 89 89 89 89 89 89 89 89		MIN	70	70	69	71	72	68	69	71	69	70	70	69	70	73	74	72	73	71		7 2												87.2 71.2
MIN 67 62 65 67 66 66 67 70 69 69 71 71 72 70 73 68 72 67 65 68 73 73 70 69 69 70 71 68 73 71 66 75 68 88 89 89 89 89 89 89 89 89 89 89 89 89		MIN	69	67	69	72	69	69	71	73	72	71	72	74	73	73	75	72	73	70	74	72	75	76	74	65	72	71	72	71	73	71	76	88.0 71.8
MIN 68 65 65 65 68 66 66 67 68 66 69 68 68 67 67 70 70 70 70 70 69 70 68 69 69 68 68 69 68 68 69 68 68 69 68 68 69 68 68 69 69 70 70 70 70 70 70 70 70 70 70 70 70 70		MIN	67	62	65	67	66	64	65	70	69	69	71	71	72	70	73	68	7 2	67	6.5	68	73	73	70	67	69	70	68	73	71	66	75	89.1 68.9
	KEAWAKAPU BEACH 260.2		68	6.5	65	65	6.8	66	66	67	6 B	66	69	68								80 69					80 70			81 69				80.7
MIN 66 66 67 68 69 66 68 68 65 66 67 68 69 66 67 68 69 66 67 68 67 68 67 68 67 68 67 68 68 67 67 67 67 67 67 68 68 67 67 67 67 67 68 68 67 67 67 67 67 67 67 68 68 67 67 67 67 67 67 67 68 68 68 67 67 67 67 67 67 68 68 68 67 67 67 67 67 67 67 67 67 68 68 68 67 67 67 67 67 67 67 67 67 67 67 67 67		MIN				68																												90.4
MIN 58 59 60 59 60 58 57 58 57 58 58 59 59 59 59 60 63 68 59 59 59 50 60 61 58 57 58 60 59 60 59 60 59 60 59 60 59 59 59 59 59 59 59 59 59 59 59 59 59		MIN	58	59	60	59	60	58	57	5 8					76 58							76 59												74.7 59.1
MIN 70 68 70 72 71 70 70 73 69 70 71 70 71 71 71 71 71 71 73 70 71 71 70 72 72 72 72 71 70 70 73 70 71 71 71 72 72 72 72 71 70 70 73 70 71 71 70 70 70 70 70 70 70 70 70 70 70 70 70		MIN	70	6.8	70	72	71	70	70	73			87 71																					88.0 70.9
MAX 86 86 87 88 89 87 87 88 88 88 86 87 86 88 88 88 88 87 87 88 88 88 88 88 88 88	377						8 8 7 2		8 7 7 2	88 72	88 72	72	72	72	73	74	75	7.5	7.5	88	88 73			87	86	89	88	90	90	87	87	86		87.5 73.1

Can	times	οd

Continued										DA	III	Y	TE	MP	EF	RA'	ru:	RE	S											НΔ	I I I A		1968
Station																Day	oi Mo	nIh															Average
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
6 <b>V</b> V																																	
ISLAND OF HAWAII																																	
HAINA 214	MAX MIN	84 66	8 4 6 5	85 68	85 66	85 65	8 4 6 5	84 65	8 4 6 4	85 67	8 5 6 7	85 68	84 67	84 68	83 69	80 66	8 4 6 8	83 69	84 67	85 67	83 69	85 67	83 70	84 67	85 68	84 67	84	85 67	83 69	83 66	84 66	85 69	84.0 67.0
HAWAII VOLCNS NP HO 54	MAX MIN	79 55	72 57	7 2 5 8	72 57	80 56	72 54	76 56	72 56	72 57	71 55	72 55	71 55	71 54	72 58	66 58	72 59	64 59	69 57	65 56	67 56	70 56	67 56	65 55	73 56	71 59	73 52	74 53	68 56	74 55	71 54	70 56	71.1 56.0
HILD W8 AIRPORT 87	MAX MIN	85 68	85 69	87 70	86 70	97 67	87 67	87 68	9 ë	87 68	87 66	86 68	84 67	85 68	8 o 7 z	84 73	8 2 71	8 4 7 0	8 3 6 7	83 67	8 5 7 0	8 3 6 9	83 68	85 70	85 68	86 71	8 6 6 8	83 70	85 69	83 68	84 69	85 68	84.8 68.8
KAINALIU 73.2	MAX MIN	79 63	82 62	8 2 6 5	80 64	78 67	77 64	78 63	77 65	77 64	79 63	8 O 6 5	78 64	79 64	82 65	8 2 6 7	79 65	8 0 6 7	79 65	81 65	8 O 6 6	78 65	79 68	81 65	81 66	82 66	83 65	8 2 6 5	80 65	80 67	78 64	82 67	79.8 65.0
KAMUELA 192,2	MAX MIN	76 60	77 60	83 59	83 58	79 59	78 58	75 60	75 56	76 57	75 58	75 60	74 60	75 <b>5</b> 9	73 50	75 61	73 61	77 60	75 60	75 60	75 60	73 60	73 62	73 62	76 62	74 57	80 55	8 O 5 B	75 60	74 59	74 56	76 58	75.9 59.2
KAMUELA AIRPORT 191	MAX MIN	76 52	77 54	8 1 5 4	79 55	76 54	8 O	76 57	76 54	77 54	7 4 5 4	76 53	75 54	77 58	74 60	75 55	74 59	75 <b>5</b> 4	75 54	76 54	75 55	76 59	75 <b>59</b>	75 54	78 54	74 52	79 54	8 o 5 8	75 <b>59</b>	74 60	75 54	79 60	76.3 55.7
KEAAU 92	MAX MIN	85 66	84 67	85 68	8 8 6 5	88 65	8 8 6 5	8 A 6 5	8.8 6.5	87 65	86 65	87 65	87 67	85 66	95 66	85 66	85 70	83 70	84 67	64 67	85 67	85 67	85 67	84 68	85 69	86 69	86 68	87 67	87 67	87 67	85 68	8 3 6 8	85.7 66.8
KEALAKEKUA 26.2	MAX MIN	78 61	8 2 6 2	83 65	80 64	81 66	78 65	79 62	80 65	79 63	80 62	80 64	78 65	81 62	83 64	83 66	78 65	80 66	80 64	81 64	80 65	81 65	77 66	81 64	81 66	81 65	82 65	8 2 6 5	80 65	80 65	63	8 2 6 3	80.4 64.3
KOHALA MISSION 175.1	MAX	8 2 6 9	82 67	83 68	83 69	85 68	84 67		83 67	83 70	84 68	84 68	83 68	82 71	82 70	77 71	81 71	83 71	70	83 70	81 71	83 71	81 73	8 2 7 0	82 71	82 70	83 69	82 70	83 71	81 70	82 68	71	82.3
KONA AIRPORT 68.3	MAX MIN	8.5 6.7	85 67	84 67	86 67	85 67	84 67	84 67	85 68	84 68	84 68	84 68	84 67	84 66	84 69	85 67	85 67	84 67	86 68	86 68	84 68	85 67	84 68	86 68	86 68		85 68		85 67	84 68	86 69	86 69	84.8 67.6
KULANI CAMP 79	MAX	69 47	68 50	70 51	68 48	67 46		69 44	65 52	65 45	68 47	69 52	6 B 5 1	66	60 47		65 48	63 44		64 47	68 46	64 47	67 46	69 48	65 49	68 51	68 49	70 50	65 48	69 51	64 45	70 48	66.8 48.1
MAUNA KEA BEACH 98	MAX MIN	86 71	87 71	8 8 7 3	85 73	87 72	86 71	86 71	86 74	88 74	88 71	87 73	87 72	93 73	87 77	8 8 7 5	88 74	87 75	88 72	87 74	88 75	93 76	94 75	94 75	89 74	88 74	8 B 7 3	87 75	87 77	93 75	95 72		88.5 73.6
MAUNA LIIA SLOPE OBS	MAX MIN	54 36	53 36	54 38	53 36	53 37	57 40	60 42	61 43	58 40	56 38	61 40	60 44	60 44	52 40	55 39	50 39	57 38	55 36	55 38	60 39	56 40	56 37	56 39	58 35	55 40	54 38	55 39	56 38	61 38	58 40	5 2 3 8	56.2 38.9
MOUNTAIN VIEW 91	MAX	82 61	8 2 6 0	83 65	79 64	78 60	8 4 5 <b>9</b>	83 60	84 63	82 60	60 60	81 59	81 62	81 61	80 62	72 66	79 67	73 66	78 63	75 63	78 62	81 64	77 64	78 64	80 65	80 65	81 61	8 1 6 1	81 61	81 63	78 61	63	79.9 <b>62.4</b>
NAALEHU 14	MAX	82 66	81 71	83 71	83 71	83 71	84 68	84 68	84 68	82 69	83 68	83 70	84 71	84 71	83 70	83 70	83 72	77 69	81 68	80 69	80 69	82 70	82 70	83 72	84 71	84 72	83 70	83 70	85 68	85 68	70	85 71	82.7
00KALA 223	MAX MIN	85 70	83 68	8 3 69	83 70	83 72	63 68	84 71	84 72	8 2 70	83 71	84 68	70	83 70	83 71	80 71	82 70	80 73	82 70	8 2 7 2	83 71	8 2 70	83 72	83 70	83 73	83 72	83 72	84 70	83 70	83 68	83 67	83 72	82.9 70.4
OPIHIHALE 2 24+1	MAX MIN	8 2 6 2	63	77 65	83 66	80 67	78 62	77 64	8 2 6 1	79 61	81 62	76 62	78 61	84 62	85 64	84 66	80 66	83 64	79 64	82 64	80 62	82 64	82 63	86 65	8 2 6 4	80 65	82 64	84 65	83 63	83 63	83 65	8 2 6 4	81.4
PAHALA 21	MAX	82 63	8 2 6 4	63 68	82 67	77 63	83 66	8 1 6 5	81 65	81 63	82 63	81 64	83 67	84 64	84 62	77 68	81 68	77 67	79 64	81 64	82 64	82 65	8 I 66	84 68	84 64	85 65	8 4 6 5	83 65	81 66	84 65	82 64	8.5 66	81.9
UPOLU POINT USCG 159.2	MAX	86 70	86 70	87 73	89 73	90 71	90 70	90 71	87 74	87 70		87 72	87 72	87 71	87 72	87 72	85 74	87 74	87 72	86 72	85 72	86 73	86 72	86 71	85 74		87 72	8 6 7 2	87 73	84 72	86 71		86.6 72.1

### **EVAPORATION AND WIND**

Slation															1	Day	Oi M	onth															F . 5
Slation		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
+ + * ISLANO OF KAUAI																																	
.IHUE W8 ΔΡ 1020.I	EVAP W1ND MAX MIN		77 90		91	2 84 1 88	90	91	91	120	143	89	.39 184 90 69	88	205 86	158 85	92	93	135	171	90	194		221	181	89	.39 106 90 68	63	.38 145 92 69		194 88	.32 215 88 70	89.5
* * * ISLANO OF DAHU																																	
HONOLULU OBSERV 702.2	EVAP W1ND MAX MIN		2.5 9.8	99	99	9 96	9	21	100	27 95	33 95	95	.37 47 97 71	52 95	43 97	97	34 98	32 96	22 85	30 95	40 95	49 97	60 96	50 95	38 95	27 95	24 95	· 25 23 95 72	26 95		50 95	43 95	1050
* * * * ISLAND OF HAWAII																																	
HILD WE AIRPORT 87	EVAP W1NO MAX MIN		26 91	92	85	5 58	9	94	92	58 90	43 90	89	.22 31 92 68	77		.22 31 86 72	*04 31 81 71	.15 42 89 71	36 89	45	42 92	.20 35 90 70	29 90	90	49 89	46	48 91 63	.23 33 84 68	.11 32 84 67	.20 56 88 67		·10 45 84 68	6.13 1398 89.0 68.3

NO.	+-	1.1	JDE	NO	OBSERVAT	ID.	-		NO.	NO	÷ +	IDE	UDE	NOI	T	SERVA	.ND	
BIATION DISTANCE NO PROPERTY N	TOR AIN ACT	LATITUDE	LONGITUDE	ELEVATION	PRECIP EVAP.	w .	OBSERVER	STATION	INDEX	DISTRICT :	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		PRECIP.	Ta	OBSERVER
LAND OF KAHAI	÷		,			-		ISLAND OF LANAI										
ALTRANTE #539, 925   1140 OZ ECIDA ANAPORTI 111   1545 01 EARNIHAU   1800[158000 514 085   4050 02 COLO   1600		2 21 57 1 22 09 2 21 56 2 21 55 2 22 06 2 21 54 1 22 07 2 21 58 1 22 05	159 19 159 32 159 30 159 22 159 35 159 19 159 26	1610 116 720 440 350 163 253 490 1218	7A 7A 7A 6A 7A 8A	cc	MC BPYOE SUGAP CO. LINUE PLANTATION CO MC BRYOE SUG CO LTO MC BRYOE SUG CO LTO MC BRYOE SUG CO LTO MC BRYOE SUG CO LTO GROVE FARM CO LTO SHOVE FARM CO LTO SHUE PLTN CO LTO	ISLANO OF MAUI	A 3461 A 5286 A 5301 A 5704 A 6012 A 9021	OI LAHAINA OI LAHAINA OI LAHAINA OI LAHAINA	1 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	157 00 157 00 156 55 156 53 156 55 156 55 156 55	1640 30 1620 3370 1430 1135 2040	7.0	WI 8A 7A WI HO WI WM	000	DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
#31F0 9A5 2161 03 #A1MEA 2161 03 #A1		2 22 02	159 34 159 26 159 40 159 22 159 20 159 19	800 1070 690 400 3600 800 175 9	8A WI 7A 8A 7A 7A 8A 6A	0 0 00	KEKAHA SUGAR CO LTO  LIHUE PLIN CO LTO  MEDIANE SUG PLIN CO  KILAUEA SUG PLIN CO  KILAUEA SUG PLIN CO  KILAUEA SUG PLIN CO  LIHUE PLIN CO LTO  LIHUE PLIN CO LTO  KILAUEA SUG PLIN CO  KILAUEA SUG PLIN CO	FIELO 46 474  HALLARU 477  HALEAKALA B E S 434  HALEAKALA RANCH 432  HALEAKALA RS 338  HALEAKALA SUMMIT 338.4  HALEHAKU 492.2	0541 A 0790 A 0995 A 0999 1004 1008	02 HANA 04 LAHAINA 01 MAKAWAO 01 MAKAWAO 02 MAKAWAO 02 MAKAWAO 02 MAKAWAO 01 MAKAWAO 01 MAKAWAO 01 MAKAWAO	10000	20 37 20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 52 20 55	156 20 156 38 156 36 156 18 156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	81	7A 6A 8A 8A 5A	c	ULUPALAKUA PANCH MAJI PINEAPPLE CO, S MAJI PINEAPPLE COM, V OF MANAII EXR STA MALEAKALA PANCH CO MALEAKALA NAT PAPK U OF MICH MI MKALA OBSY RHL SCOTY MAJI PINEAPPLE CO, MANAIIAN COM + SUG CO
ELAUGE FILED IT 1119 A 4564 0] HANALET ELAUGE FOUNT 1139 4458 0] HANALET ELAUGE FOUNT 1139 4458 0] HANALET ELAUGE FOUNT 1139 4458 0] SWAIMER A 4578 0] SWAIM		1 22 14 3 22 02 3 22 04 2 21 55 2 21 58 1 22 11 1 22 11 2 21 54 2 22 01 2 21 59	159 24 159 41 159 46 159 28 159 29 159 23 159 30 159 23 159 23	415 180 2150 36 240 640 737 100 375 207	7 A 8 A 7 A 6 A 7	c	U S COAST GUARO KEKAHA SUGAR CO. KEKAHA SUGAR CO. KEKAHA SUGAR CO. KEKAHA SUGAR CO. KOONE FARM CO. LTO KILAUEA SUG PLTN CO. MC BPYOE SUG CO. LTO HAWAIIAN SUGAR PL. ASSN LIHUE PLTN CO. LTO.	HONOKOHAU 480 HONOKOHUA 493 HONOLUA FLO 49 494	1125 1148 A 1552 A 1887 A 1887 A 1914 A 1935 2208	OI HANA OI HANA OI HANA OI HANA OI HANA OI HAKAWAO O4 LAHAINA O4 LAHAINA O1 HAKAWAO O3 WALLUKU O4 LAHAINA	1-11-11-11	20 45 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 56	155 59 156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 42	120 61 325 6930 870 135 125 6280 1100		8A 11A 7A MO MO 6A MO	c	HARRY MASEGAVA MANAILAM AIRLINES HALEAKALA MATL PARK RG MAU] PINEAPPLE CO MAU] PINEAPPLE CO SHAUI PINEAPPLE CO HALEAKALA RANCH CO STATE DIVISION OF PARK MARCA PROPERTYS
LINUE WB AP 1220-1 R 9590 02 LINUE  HARAMUENA POINT 90.1 5786 02 KOLDA  HARAMUEN 1905 BBW 03 WATHER  HARA 1026 6080 03 WATHER  HOLDAN 1145 8020 01 KAMATHAN  HOLDAN 1145 6050 03 WATHER  HOLDAN 1145 6050 03 WATHER  HOLDAN 1145 6650 03 WATHER  NI PRIDGE 1035 6650 03 WATHER  HOLDAN 1017CH 1051 6680 03 WATHER  HOLDAN 1017CH 1051 6680 03 WATHER  HOLDAN 1017CH 1051 6680 03 WATHER  HOLDAN 1017CH 1051 6680 03 WATHER		2 21 52 3 21 55 3 22 02 2 21 55 3 22 07 1 22 11 22 04 22 02 22 04	159 36 159 20 159 30 159 44 159 28	52 140 11 300 3500 330 5148 1250 1110	7.6	c J	U S WEATHER BUREAU U S COAST GUARD OLORGE SUGAR CO KEKAHA SUGAR CO LTD GROVE FARM COMPANY S U S GEO SURVEY LTHUE PLANTATION CO. S U. S GEO. SUPVEY KEKAMA SUGAR CO LTD LTHUE PLTN CO LTD	KAHULUI WB AP 398	A 2552 R 2572 A 2630 2679 A 3433 3576 3910	03 WAILURU 04 LEMAINA 04 LEMAINA 06 OAWAXAM 07 WAILA 07 WAILA 08 WAILA 08 WAILA 09 WAILA 09 WAILA 00 WAILA 00 WAILA 00 OAWAXAM 00 OAWAXAM	3 1 1. 4 2 3	20 54 20 54 20 51 20 54 20 53 20 53 20 39 20 52 20 50	156 33 156 38 156 26 156 16 156 13 156 38 156 08 156 23 156 10 156 27	650 2000 48 2520 700 1585 1020 480 980	MID 7A	WI MID MO 7A WI 5A MO 8A	c .	EOWARD CHANG PIONER MILL CO LTO JU S WEATHER BUREAU E MAUI IRR CO LTO E MAUI IRR CO LTO E MAUI IRR CO LTO KAUPO RANCH HAWAIIAN COM + SUG CO E MAUI IRR CO LTO A. L. COPELL
N WALLUM PIVER 1045 609 NO 1 LIMBE  PH MARINIMA 1115 8159 01 HAMALET  PURPLY HORE 1040 8205 02 WARMALET  PURPLY HORE 1054 8205 02 WARMALET  STABLE CAMP 1053 6050 02 LIMBE  WARLUM 2010 86940 02 KOLDA  WARLUM 2010 80940 02 KOLDA  WARLUM WARLUM 2010 80940 02 KOLDA  WARLUM WARLUM 2010 80940 02 KOLDA  WARLUM WARLUM 2010 80940 02 KOLDA  WARLUM WARLUM 2010 80950 02 LIMBE		22 04 1 27 12 1 22 13 22 01 21 58 2 21 57 2 22 04 2 21 54 2 21 58 2 21 58 2 22 01	159 29 159 42 159 24 159 27 159 27 159 34 159 31 159 27	650 101 295 1660 329 420 740 215 2100 565 780	MO	00 00	MC BRYDE SUG CO LTO  MC BRYDE SUG CO LTO  PPINCEVILLE PANCH  KEKAMA SUGAR CO LTO  GROVE FARM CO LTO  GROVE FARM CO LTO  LIHUE PLANTATION CO.  MC BRYDE SUG CO LTO  LIHUE PLIN CO LTO  LIHUE PLIN CO LTO  LIHUE PLIN CO LTO	KIHEI 311 KIPAHULU 258 KUKUI 380 KULA HEIGHTS 323-2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 MAHIMAHINA 466	4634 4887 5003 5006 5177 4 5404	O3 WAILUKU O1 HANA O2 HAKAWAO O2 MAKAWAO O4 LAHAINA O4 LAHAINA O4 LAHAINA O1 MAKAWAO O4 LAHAINA	2 2 4 4 4 1	20 47 20 39 20 54 20 47 20 42 20 53 20 51 20 51 20 53 20 57	156 27 156 04 156 35 156 19 156 22 156 41 156 37 156 39 156 15 156 40	90 260 5788 2520 3004 A5 1280 220 1 240 715	7 A 7 A	7A 7A 6A 7A 7A VAR 7A MO 7A	-	HAWAIIAM COM + SUG CO KIPAHULU CATTLE COMPANY MAUI PINEAPPLE CO KENNETH MILLEY KULA SAMATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO E MAUI IRP CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO
WAIAH UPER 102 9966 02 LINDE  #AILUA KAI 105 49467 02 LINDE  #AILUA KAI 105 49467 02 LINDE  #AILUA KAI 105 49467 02 LINDE  #AILUA KAI 103 4995 02 KOLDA  ISLAND OF OMBU  AIEA FIELO 625 761 A 0111 03 EWA  BEGETANIA DUMBING STA 0211 02 HONCULUC  AMP 86 8077 A 3000 03 EWA		2 21 54	159 21 159 41 159 31	10 50 20 210 455	9A 7A 8A 6A		KEKAHA SUGAR CO LTO LIHUE PLANTATION WAJMEA SUG MILL CO MC BRYDE SUG CO LTO WAJAHOLE WIR CO LTO BOARO OF WIR SUPPLY	HOKUPEA 475 NAKALELE -FLO 60-497 OLINOA 332 OLOWALU 206 OLOWALU GULCH 377 PAAKEA 350 PAIA 406 PANILEIHULU 259-2 PAUWELA 490 POMAKEA 8910GE 307-2	7040 7059 7066 7194 7566 7674 7857	04 LAHAINA 04 LAHAINA 01 MAKAWAO 04 LAHAINA 04 LAHAINA 01 HANA 01 WAILUKU 02 HANA 01 MAKAWAO 03 WAILUKU	4 1 4 4 1 1 2	20 59 21 02 20 48 20 49 20 51 20 49 20 55 20 41 20 55 20 49	156 37 156 36 156 17 156 36 156 36 156 07 156 23 156 08 156 19 156 31	1290 340 4127 7 800 1260 170 3570 485		VAR VAR 7P MO 6A 6A WI 7A 6A	F	MAUI PINEAPPLE CO MAUI PINEAPPLE COMPANY MAUI CO MATEP GEPT PIONEER MILL CO. PIONEER MILL CO. PIONEER MILL CO LTO HAMAIIAN COM + SUG CO KAUPO HAMAIIAN COM + SUG CO KAUPO FOR PINEAPPLE CO. MASEROT PINEAPPLE CO. WAILUKU SUGAP CO.
CAMP 86 877 AND AND AND AND AND AND AND AND AND AND		1 21 39 1 21 26 21 21 21 21 21 23 21 23	157 56 157 47 157 50 158 02 157 54 158 00 158 06	680 20 13 965 42 170 1274 2220	VAR	00000	OEL MONTE COPPORATION PICHARO COSUPN U OF H MARINE LAB JAL BANNIMS EN PLANTATION CO BOAPO OF MATER SUPPLY WAIALUA AGP CO LTO H, V. VON HOLT U S COAST + GEODETIC U S WEATHER BUREAU	POLIPOLI SPRINGS 267.2: PUOHOKAMOA 2 343 PUU KUKUI HAKAI 472 PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2 TWIN GATES 261.3 UKULELE 333 UKUMEHAME 301 ULUPALAKUA PANCH 250	8336 8444 8543 8553 8688 8742 8744 8750	OZ MAKAWAO OI HANA O4 LAMAINA O3 WAILUKU OI HANA O WAILUKU O MAKAWAO O1 LAMAINA O MAKAWAO	1 4 3 1 3 3	20 41 20 50 20 55 20 53 20 46 20 54 20 46 20 48 20 48 20 48 20 39	156 35	6150 2980 2500 60 2160 85 1310 5230 75		VAP MO MO 7A BA VAR MO 7A 8A	ŀ	STATE OLV OF FORESTRY E MAUL IRR CO LTO PIONEER MILL CO LTO HAVAI IAN COM A SUS CO FANNIAN COM A SUS CO FANNIAN COM A SUS CO FANNIAN COM A SUS CO FANNIAN COM A SUS CO FIONEER MILL CO LTO ULUPALAKUR RCH CO LTO ULUPALAKUR RCH CO LTO
#0000,UUU SUBSTA 704   1926 0,2 HONQUUU SUBSTA 705   1926 0,2 HONQUUU SALKAKKI 1724-6   2260 0,2 HONQUUU SALKAKKI 1724-6   2260 0,2 HONQUUU SALKAKKI 1924 0,2 SALKAKKI 1724-7   2600 0,2 HONQUUU SALKAKKI 1925 5,11E 777   2600 0,2 HONQUUU SALKAKKAKE 724-7   3000 0,1 KOOLANDOU SALKAKKAKE 724-7   3000	0	2 21 19 2 21 18 2 21 18 1 21 31 1 21 41 1 21 24 2 21 23 1 21 19	157 52 157 50 157 43 157 54 157 57 157 45 157 50 157 41	12 50 10 600 25 10 910 1380	84 84 84 86 86 87	20 00 00 0	ESSA-WEATHEP BUREAU HS PA EXP STATION MRS, MILLIE ZAPATA WAIAHOLE WIT CO LTO KAHUKU PLIN CO KAILUA FIPE STATION BOAPD OF WIT SUPPLY HAWAII NATIONAL GUARO STATE HOSPITAL	WAHIKULI 364 WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI 0AM 336 WAIKAPU 390 WAILUA IKI 348	9315 9315 9332 9335 9371	O- LAHAINA O- WAILUKU O- WAILUKU OI MANA OI MAKAWAO OI WAILUKU OI HANA O- WAILUKU	And make	20 54 20 55 20 57 20 52 20 49 20 52 20 48 20 54 20 38	156 40 156 31 156 32 156 12 156 14 156 31 156 09 156 30 156 12	580 320 300 1200 4320 47 2631 201 221		8A 6A 6A WM VAR 6A 6A		PIONEER MILL CO LTO WAILURU SUGAP CO WAILURU SUGAP CO F MAUT IPP CO LTO MAUT CONTY WIR DEPT WAILURU SUGAP CO SAST MAUT IRPIGATION CO ST. ANTHONYS BOYS SCH HALEAKALA RANCH CO
KANCOHE PANCH 838 A 3123 01 KOOLANDO APPAR HARAT 905-1 3222 01 KOOLANDO APPAR HARAT 905-1 3222 01 KOOLANDO KANAHARAN 1841 A 3734 02 WALALUA KANEL KANEL 181 MARE 880-2 3747 02 WALALUA KANEL MALIZA 906-1 3 3829 01 KOOLANDO KOOLAU DAN 8355 3747 02 WALALUA KOOLAU DAN 8355 3747 02 WALAUA KOOLAU DAN 8355 3747 02 WALAUA	0	1 21 23 1 21 36 2 21 21 5 21 35 9 21 34 1 21 40 5 21 30 6 21 26 4 21 29	157 54 157 52 158 11 157 59 158 00 158 05 157 58 158 08	365 10 614 20 1180 1050 725 1160 113	8A 7A WI 7A 8A 74 7A	ic ic	KANEOME RANCH CO GEORGE H. SWIFT KAMEMAMEHA SCHOOLS WIJALUA AGR CO LTO HAWAII NATIONAL GUARO WAJALUA AGR CO LTO C + F OFFICER HEOG USN AMMUNITION OEP USN AMYY	ISLANO OF HAWATI AMUA UMI 75 AWINI 18241 EAST HONOKANE 183*2 HAINA 214 HAKALAU 142 HALEPIULA 117 HALEPOHAKU 111	019 045 084 0905 1033	05 N KONA 01 N KOMALA 01 S KOMALA 01 HAMAKUA 02 S HILO 03 KAU 01 HAMAKUA 02 HAMAKUA	1 1 2 3	19 38 20 10 20 07 20 06 19 54 19 24 19 56 19 46	155 47 155 43 155 43 155 28 155 08 155 17 155 24 155 28	522 187 424 460 105 3648 5770 9220		MOI W1: MOI 7A 7A MOI MOI MOI MOI	÷	GREENWELL RANCH KOMALA DITCH CO LTO KOMALA DITCH CO LTO HOMOKAR SUGAR CO PEREKEO SUGAR CO. HAWAII NAT PARF KUKAIAU RANCH CO STATE DUV. OF PARKS
LULIKU 781,7 LUNALICH ONNE 724,2 MAGAHA KAI 790 A 5760 JO MONOLULU MAGAHA KALEY 900-11 MAGAH 712,4 MAGA 712,4 MAGA 712,1	0	1 21 24 2 21 17 4 21 28 4 21 29 2 21 19 2 21 19 2 21 20 1 21 21	157 49 157 42 158 13 158 12 157 39 157 49	240 40 25 160 538 220 650 410 20	7A 7A 8A 8A 8A M1D	c c	MILNOR LUM LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO US COAST GUARD MES.JOHN N-BEAUMONT ROADO OF WIT SUPPLY LEXP. STA. M.S.P.A. JOHN A ROYBURGH FEOERAL AVIATION AOM,	HAWAII VOLCNS NP HO 54 HAWI IS HILO WB AIRPORT 87 HOLUALOA 70 HOLUALOA 70 HONAUNAU 27 HONOHINA I 37 HONOXANE I 81 I.1	A 1303 A 1339 R 1492 A 1557 A 1562 1665 1701 A 1864	02 KAU 01 N KOHALA 02 S HILO 04 N KONA 04 N KONA 04 N KONA 02 N HILO 01 N KOHALA	2 4 4 4 2 1 2	19 26 20 14 19 43 19 38 19 37 19 27 19 56 20 09	155 16 155 50 155 04 155 55 155 59 155 59 155 09 155 09	3971 600 27 3220 14 1089 300 600 1100 6250	MI:	8A 7A HID M MO 7A 7A 7A 7A 7A 7A	I DIC	HAWAII NAT PARK KOMALA SUGAR CO  J U S WEATHER BUREAU STATE DIV OF FORESTPY VARIOUS PANCH HANDS CMARLES HUA PEPEFKED SUGAP COMPANY KOMALA DITCH CO LTD PEPFKER GUGAR CO.
NULANU BES 4 783   6976 03 HONOLULU   PAUGAU BES 5 4785   7157 05 441ALUA   PAUGAU FLATS 718   7150 05 441ALUA   PAUGA FLATS 718   7566 02 HONOLULU   PAUGA FLATS 718   7566 02 HONOLULU   PAUGA FLATS 718   7793 03 E 441		1 21 35	157 50 158 02 157 46 157 48 157 58 157 43 158 01 157 54	1048 41: 1060 995 1640 24: 6 700 40	8.8	c	BOARO OF WIR SUPPLY BOARO OF WIR SUPPLY WAIALUA AGR CO LTD BOAPO OF WIR SUPPLY BOARO OF WIR SUPPLY JAMFS MUMEMO MPS ALFRED FRANCO, JR. PINEAPPLE RESEARCH INST KAHUKU PLIN CO	HUEHUE 93.1  KAALA IK1 12  KAAWALOA 29  KAHIAWAI 3.4  KAINALIU 73.2  KALAPAN NO 1 67.8  KAMAOA NO 2 5  KAMUEL A 192.2	A 2249 A 2327 2512 2751 2894	04 N KONA 03 KAU 04 N KONA 02 S HILO	3 4 3 4 2 3	19 45 19 08 19 30 19 08 19 32 19 20 19 02	155 46 155 56 155 02 155 40	8190 1960 1340 1330 3700 150 11375 2670	7A	7A 8A 7A VAR WII 6A	c	STATE DIV OF FORESTRY HUEHUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELLE P. SKHH HAWAII VOLCANDES NAT P. HAWAII AN PANCH CO PARKEP RANCH
ANTI-STEPHEN SET 19 4 2016 OF HONTLUDE LINE SET 20 1 2016 OF HONTLUDE LINE SET 20 2 2016 OF H	0	1 21 22 2 21 20 2 21 20 2 21 16 5 21 30	157 49 158 03 157 53 157 47 158 07	360 488 200 1325 7 85 745 4 32 20	7A 7A 8A 7A 8A 7A 7A 8A		NAT MEM CEMETERY REV P CULLINAN BOAPO OF WATER SUPPLY R. E. WHITE DEPT OF GEOSCIENCE WAIALUA AGP CO LTO WAIAMOLE WIR CO LTO SPENCER TINKER WAIALUA AGP CO LTO CAPITAL INVEST CO	KAMUELA AIPPORT 191 KAPARALA RANCH 36 KAPOHO LANOING 93.5 KAUMANA 88.1 KAMAINUI LOMER 193 KEAAU 92 KEAIWA CAMP 22.1 KEALAKEKUA 26.2 KEANGOLU CAMP 124.2	3510 3770 3872 3925 3977	OS KAU OS KOMALA OS KOMALA OS KAU OZ PUNA OZ S HILO OII HAMAKUA OZ PUNA OZ S KONA OZ KAU	5 3 2 1 2 3	20 00 19 17 19 30 19 41 20 05 19 38 19 14 19 30	155 40 155 27 154 52 155 09 155 39 155 02 155 29 155 55	2665 2140 290 1123 1080 280 1700 1450 5280	8A	8A VAR 6A WI 8A	2000	MAWAILAM AIRLINES MAWAILAM RANCH CO, INC. BOARO OF WATEP SUPPLY  SHIGEO MASUYA HONOKAA SUGAP CO PUNA SUGAP CO PUNA SUGAP CO HAVAI SUGAP CO MAY OR COMPANY MISSIAM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL STATE AMM GRENELL
VATANAT MAJORA ROJ A 7239 OU WATANAE NAJAWA BU KATANA RAJAWA KATANA KATANA RAJAWA KATANA KATANA KATANA KATANA KATANA KATANA KATANA KATANA KATANA KATANA KATA	0 !	4 21 29 3 21 28 1 21 30 2 21 16 2 21 18 2 21 18 2 21 18	158 09 157 56 157 53 157 49 157 45	1575 800 760 10 170 180 60 420 59	WI WI WI BA BA WI BA 7A BA MID		CAPITAL INVEST CO MAIAHOLE WIP CO LTO MAIAHOLE WIP CO LTO MAIAHOLE WIR CO LTO HONOLULU ZOO BOAPO OF WIR SUPPLY MAILUPE VALLEY SCHOOL ST OIL WIR + LAND GEV MAIALUA AGP CO LTO GOMU SUGAP CO BOARO OF WIR SUPPLY	KEMEMA 181.2 KIOLAKAA A + F 6 KIPA 89.2 KOMALA 179.1 KOMALA MAULILI 176 KOMALA MISSION 175.1 KOMALA PROPER 166 KOMALA PROPER 166 KOMALA PROPER 166 KUKAJAU 222 KUKUJHAKELE HIC 199	4245 4625 4632 4670 4675 4680 4764 4765 4815	OI N KOHALA OT KAU OT S HILO OI N KOHALA OI N KOHALA OI HAMAKUA OI N KONA ON KONA ON KONA ON KONA	3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19 04 19 44 20 14 20 13 20 14 20 05 19 39 19 52 20 02	155 45 155 38 155 09 155 47 155 48 155 38 156 01 155 55 155 21	3840 1925 1490 309 960 537 72 17 15	7A	W1 W1 84 71 71 W1 8A 8A 6A	C	STATE DIV. OF FORESTRY KOHALA DITCH CO LTD  STATE DIV OF FORESTRY MAUNA KEA SUGAR CO. KOHALA SUGAR CO. KOHALA SUGAR CO. KOHALA SUGAR CO. HONYKAA SUGAR CO. HAWAIIAN AIRLINES KONA VILLAGE RESORT HIL HAMAKUA MILL CO.
EAL AJPARA 563 EAWALO MINICA 542, A 1046 O 1 MOLOKAT EAWALO MINICA 542, A 1046 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 513 A 1047 O 1 MOLOKAT EAWALO MINICA 514 A 1047 O 1 MO		1 21 12 1 21 04 1 21 06 1 21 06 1 21 09 1 21 09 1 21 09 1 21 09 1 21 09	156 52 157 01 157 01 157 12 157 02 156 48 157 13 157 06	30 60 12 70 560 878 20 1075 450 700	8A 6A WK. 7A 8A 9A 8A 6A TW		KALAUPAPA SETTLEMENT H, J. CARSTEN HOLOKAI BANCH LTO HOLOKAI GORBEAL HOSPITA HOLOKAI GORBEAL HOSPITA HOLOKAI RANCH, LTO GEL MONTE COPPORATION LIBBY MCNELLL * LIBBY ALOHA AIRLANCH HOLOKAI PANCH HOLOKAI PANCH	KUKUIHAELE MILL 206 KULANI CAMP 79 KULANI MAUXA 76	4928 4938 5011 5018 5021 526 533 5460 6134 6180	OI HAMAKUA	2 1 2 1	20 07 20 08 19 33 19 35 19 35 20 01 19 40 19 29	155 35 155 34 155 18 155 27 155 20 155 41 155 50 154 54 155 50 155 50 155 50 155 50	980 300 5170 8300 5735 2615 1537 650 1760 103 11146 475	8A MID	6A 6A 8A WI WI 8A 8A 8A		HONDAA SUGAR CO HONDAA SUGAR CO 51 DEPT OF SOCIAL SER U.S. VEATHFR BUREAU ST DEPT OF SOCIAL SER STATE DEPT OF L + N RES KONA EXPÉRIMENT STATION KATALON STATION KATALON STATION MAUNA KEA BEACH HOISE U.S. VEATHER BUREAU KONA EXPÉRIMENT STA KANDA RAMAH

STATION	INDEX NO.	DIVISION	DISTRICT	RAINAGE 1	LATITUDE	ONGITUDE	ELEVATION		SERVA TIME A TABLI	ND S	OBSERVER	STATION	INDEX NO.	DIVISION	DISTRICT (	DRAINAGE 1	LATITUDE	LONGITUDE	ELEVATION		MECIP CAAP	ND S	OBSERVER
MOUNTAIN VIEW 91 NAALEHU 14 NAPOGOPOO 28 NALEHU 127 NULLI 1787 OKKALA 223 ORCHID LAND EST 91.5 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 221 PAADHAU 231 PAADHAU	A 6588 A 6697 6731 A 6806 7131 7166 A 7185 7204 7312 7421 7457 A 7643 7711 7721 8000 A 8063 A 8063	022 032 04 022 01 02 01 02 01 03 02 02 02 02 02 02	PUNA KAU S KONA PUNA N KOHALA N HTLO S KONA PUNA HAMAKUA HAMAKUA	22 22 22 22 22 22 22 22 22 22 22 22 22	19 33 19 04 19 28 19 19 20 14 20 01 19 16 19 30 20 05 20 03 19 12 19 30 19 22 19 47 19 47 19 41 19 44 19 44	155 30 156 07 156 55 156 55 156 55 155 17 155 53 155 26 155 26 155 29 156 29 156 29 156 29 156 29 156 32 156 32 156 32 156 32		6A 8A 7H 7H	MO 6A 8A 7A VAR 6A 7A	ds.	MAWALIAN BANCH CO PUMA SUGAP CO EONA CYPEPIMENT STA KONALA SUGAP CO LAUPANDENDE SUGAR CO MISS CLEONAD SUGAP CO LAUPANDENDE SUGAR CO MISS CLEONAD SUGAP CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO HAMARUA MILL CO TATALE ON TOPESTRY STATE DIVISION OF PAPKS ERWIN H. BAPP	PUU LAAU 102:1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU OO 82 PUU WAAWAA 94:I SADDLE POAO 1 84	A 8452 A 8460 A 8515 A 8548 8550 8555 8675 8679 8780 8830 9025	05 01 02 05 02 03 03 01 01	KAU HAMAKUA	1 1 2 5 2 3 3 3 1 1 2	19 50 19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40	155 24 155 36 155 49 155 26 155 50 155 23 155 15 155 23 155 41 155 23 155 42 155 47	7750 7440 4880 6940 1800 6140 2230 400 3420 611 1050 3830	88	MO MO MO MO 7A 6A 7A WM W1	dS	KUYAIAU PANCH CO STATE DIV OF FISH-GA GORENNELL BANCH COMANUM CONTROL OF THE COMANUM CONTROL OF THE WAY OF THE COME WAY OF THE COME CONTROL OF THE COME UNIQUE CONTROL OF THE CONTROL OF THE COME UNIQUE CONTROL OF THE CONTROL OF THE COME UNIQUE CONTROL OF THE STATE OF THE COME CANADA OF THE COME CANADA CONTROL OF THE COME CANADA CONTROL OF THE COME CANADA CONTROL OF THE CONTROL OF

TAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAMU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-SOUTH-CENTRAL MOLOKAII 1-(NO ENTRA-ISLAND DIVISIONS) LARII (-NOE DITRA-ISLAND DIVISIONS) MAU: 1-NORTHEASTERN 2-SOUTHERN 3-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 3-CENTRAL 3-SOUTHERN 3-S

#### REFERENCE NOTES

Additional Information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p O. Box 3650, Homolulu, Hawaii, or to amy Weather Bureau Office mear you Additional precipitation data are contained in "HOURLY PRECIPITATION DATA BAWAII"

DIENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are Temperature in °F., precipitation and evaporation in inches, and wind sovement in miles. In "Supplemental pata" table directions entered in figures are tens of degrees. Resultant wind in the vector sum of wind directions and ejeced divided by the number of observations

OBSERVATION TIME Data in the "Monthly Extremes"; "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours coding attime of observation unless indicated otherwise by reference letters in the Station ladex. The Station ladex shows observation time in local standard time.

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES: Bawall state key numbers are included following station makes in the several tables
DELAYED DATA AND CORRECTIONS #111 be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- + And also on an earlier date or dates.
- ++ Highest observed one minuts windspeed This station is not equipped with an instrument to measure fastest mile data
- Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station Index", indicates amount carried in the "Total" column le for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletins for dates of seasurement. Where gages are read only once monthly, measurements made on the first of a worth are credited to the last day of the preceding month.
- H Adjusted to a full month
- J "Supplemental Data" table
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record
- R Amounts from recording gage
- T Trace, am amount too small to measure
- V lmcludes total for previous month.
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING.
  - AR Observation made after rain
  - c is Special Column of Station index indicates Recording Rain Gage Station. Hourly procept that on values are processed for special purposes, and are published later in the "Bourly Precipitation Data" builetin. If daily anouste are published in "Clhastological Data" builetin they are from a separate mon-recording gage, except where indicated by reference 'R'. Such amounte may differ from amounts published from the recording gage in the "Bourly Precipitation Data" builetin.
  - WO Gage read once monthly, usually on the last day
  - OC Gage readings at periods varying from a few weeks to several months.
  - 8 Storage Pracipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sumset
- VAR Observation time is variable
- $\ensuremath{\pi1}$   $\ensuremath{\text{Gage}}$  read weekly or lrregularly only.
- WM Gage read weekly and last day of month
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

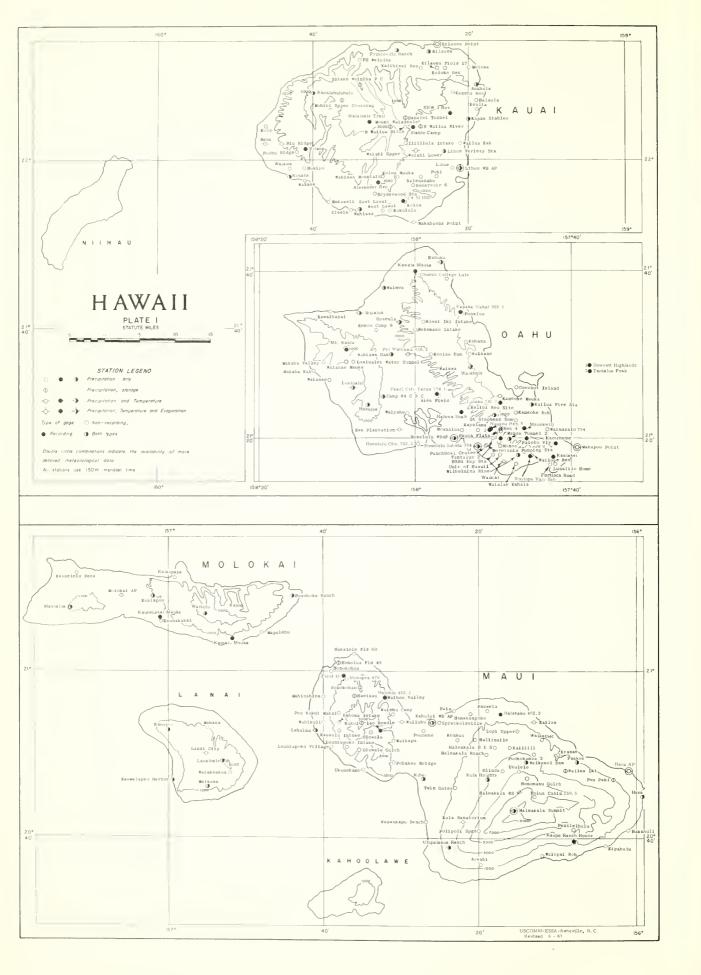
Stations appearing in the tables with no data were either missing or received too late to be included in this lesue.

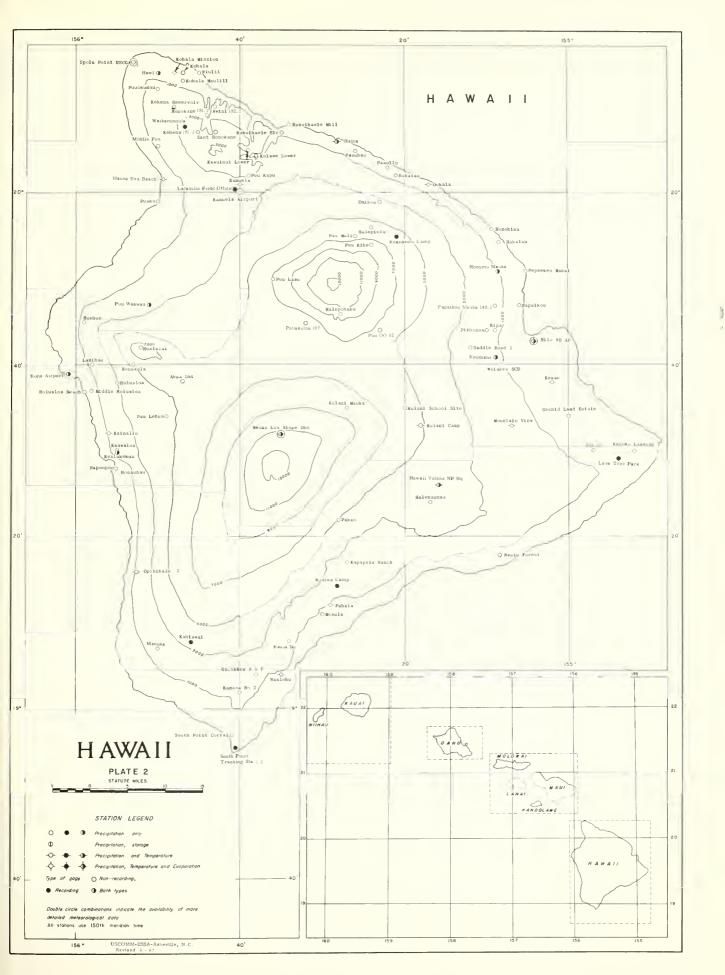
General weather conditions in the D. S. for each month are described in the publications MONTHLY MEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing office, Wannington, D. C. 20402.

information concerning the history of changes is locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Meather Eureau stations may be found in the latest annual issue of Local Climatological Data, price 16 cents. These publications may be obtained from the Superintendent of Document the address shown above.

Subscription Price 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents. Government Printing Office, Easinington, D. C. 2042.

USCOMM-ESSA-ASHEVILLE-10/29/68-890







# CLIMATOLOGICAL DATA

HAWAII

U.S. DEPARTMENT OF COMMERCE





Volume 64 No. 8



		1			Ter	npera	ture												pitation					_
				-	101	,,,,,,,					N	lo. of	Days		1	1				w. Sleet		No	of I	Days
Station					lan					Days	Ma	-	Mi	-		an a	Day				-			More
		Åverage Maximum	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	<b>Де</b>	S0° or Above	32° or Below	32° or Below	0° or Below	Total	Departure From Normal	Greatest ]	Date	Total	Max. Depth on Ground	Date	ŏ	.50 or More	1.00 or M
* * * ISLANO OF KAUAI																								
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A	75.6 87.5	59.0 74.1	67.3			29	51 70	3		0	0	0	0	1.59 1.69 1.75 3.69 3.08	- 1.30	.48 .75	18	.0	0		3	0 1 0	0 0 0
KOLDA 936 LIHUE W8 AP 1020.1 MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	84.6 89.9	73.4 68.6	79.0 79.3	1.0		23 16+	67 66	4		0 21	0 0	0	0	3.50 .70 .22 11.94 4.52	- 3.02 - 1.76 77 - 6.13	.68 .17 .17 2.30	20	.0	0		1 1 1 8	2 0 0	
PUEHU RIDGE 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	A	82.8	66.9	74.9		87	12	65	24+		0	0	0	0	.49 .52 7.39	- 2.00	. 46 . 28 . 98	2	• 0	0		1 1 19 1	000	
ISLANO				76.3											2.95				.0					
* * * 1SLANO DF DAHU																								
HDNDLULU D85ERV 702.2 HDNDLULU W8FC 703 KAHUKU 912 KANEDHE MAUKA 781 KODLAU 0AM 833	R A	90.3 86.0M 84.5	75.4 76.0M 73.6	82.9 81.0M 79.1	3.5 2.7 2.0		20+ 20+ 19+		16		25	0 0 0	000	0 0 0	T •10 •99 1•74 6•15	79 - 1.67 - 2.55 - 2.38	.52 1.26		.0	0		0 0 6 15	0	0
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALDLO VALLEY 718	А	87.6 84.0 84.8M	76.2 74.7 67.8M	81.9 79.4 76.3M	3,3	89	31 18 18	73	16 26 18		1 0	0	0	0	.19 .04 1.89 1.75 2.44	98 - 8.70 - 2.16 - 9.30		22 26	.0	0		1 0	0	0
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA OAM 863 WAIAHDLE 837	A A A	88.1	68,2	73.2			19+		16		8	0	0	0	.24 2.01 .40 3.93	- 7.90			.0	0			0	
WAIALUA 847 WAIKIK1 717.2	Α	89.1	74.7	79.4	1.7		17		16		13		0	0	.13	- 1.29	.05		.0	0		0	6	
WAIPAHU 750 ISLANO	Α			79.9							ļ			5	1.31	- 1.11			.0			- 4	3	ľ
* * * ISLANO DF MOLOKAI		i																						
KUALAPUU 534 MAPULEHU 542 MAUNALDA 511 MOLOKAI AP 524	A	84.9	72.5	78.7		88	19	70	29+		0	0	0	0	.72 1.72 .81	50 - 1.18 39	.41		.0	0		7	000	
I SL ANO				78.7											.89				.0					
ISLANO OF LANAI														1										
LANAI CITY 672	Α	80.0	67.3	73.7	1.8	83	31+	63	25		0	0	0	0	1.63	15	. 65	19	.0			4	1	
ISLANO  * * *				73.7										ļ	1.63			i	.0					
ISLANO OF MAUI  HALEAKALA 8 E S 434  HALEAKALA RS 338  HANA AIRPORT 355  HONOKOHUA 493	Α Α	67.2 87.1	47.4	57.3		89	28+29+	67	16		0	0	0 0	0	1.39 .52 3.94 1.37	- 3.29 - 1.21		29	.0	0		13	1020	
KAANAPALI AIRPORT KAHULUI W8 AP 398 KAILUA 446 KEANAE 346	R A	89.9 82.0	71.6 68.2	80.8 75.1	1.8		30+ 4	66 66	17+ 19+		18 0	0	0 0	0	.26 6.26 10.80	09 - 5.05 -10.95	.17	31 10	.0	0		21	3	
KIPAHULU 258 KULA SANATORIUM 267		75.6	58.2	65.9	. 2	78	24+	56	28+		0	0	0	0	5.23 3.34	- 3.23	2.20	29 19	.0			15	1	
AHAINA 361 PAIA 406 MAILUKU 392		88.7	71.5	80.1	3.0		25 31+		31+ 17+		2		0	0	.02 .58 .58	40 - 1.34 28	.02 .12 .35	29 29 4	.0	a		3 2	000	
ISLANO				75.1											2.64				• 0					
* * * ISLANO DF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HQ 54 HILD WB AIRPORT 87 HUEHUE 93.1 KAINALIU 73.2	R A	84.7 71.9 84.1 81.3	66.5 55.8 68.9	75.6 63.9 75.5 73.8	1.1 .3 .7	86 81 86	31+ 22 6+	51 67	16+ 15 28+ 20		000	0	0000	0000	3.09 4.74 9.62 6.26 7.16	- 1.55 - 2.85 - 1.83 3.54 53	1.08 1.29 2.06	18	. a . a . a	a		7 12 19	HALO 4	
•		77.8M		67.2M		9.1	18+	51	29+		0	0	0	0	т		Т	31+	-0	a		a	9	

See Reference Notes Following Station Index SPECIAL WEATHER SUMMARY ON PAGE 97

### CLIMATOLOGICAL DATA

HAWAII

1968 AUGUST Continued Temperature Precipitation No. of Days Snow, Sleet No. of Days Departure From Normal Day or More Station Degree Days Max. Min. Max, Depth on Ground .50 or More .10 or More Average Average Average Highest Greatest Total Date Date Date Date 1.00 76.2 73.8 77.5M 65 65 68 7.37 5.83 2.06 KEAAU 92 85.1 67.3 87 84 5+ 19 31+ 0 0 0 0 0 0 000 .91 31 1.95 22 .90 31 1.1 0 0 - 4.38 20 11 4 9 KEAAU 92 KEALAKEKUA 26.2 KONA AIRPORT 68.3 KUKUIHAELE HIC 199 KULANI CAMP 79 .0 5 6 2 1 0 0 0 0 00000 .95 .90 31 .51 14 .55 5 86.5M 68.5M 89 18 30+ - 3.32 2.65 0 0 0 0 3.97 MAUNA KEA BEACH 98 .74 .51 88.7 74.2 93 26 86 14+ 70 63 0 0 .52 .26 19 31 0 .0 00000 0 0 0 0 1 1 0 0 0 PAHALA 21 POHAKULOA 107 PUAKO 95.1 PUU WAAWAA 94.1 29 65.5 - 2.55 0 .05 13 1.75 19 . 45 UMIKOA 118 WAIAKEA SCD 88.2 1.43 11.78 - 3.63 .35 144 .0 0 0 0 1.36 14 20 10 ISLANO 74.1 3.91 . 0

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE, 94° ON THE 31+ AT 2 STATIONS

LOWEST TEMPERATURE, 35° ON THE 20+ AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 15.52 INCHES AT HONOMU MAUKA 138, HAWAII

LEAST TOTAL PRECIPITATION: .00 AT 10 STATIONS

GREATEST ONE-DAY PRECIPITATION: 2,92 INCHES ON THE 22D AT KAAWALOA 29, HAWAII

#### HAWAII - AUGUST 1968

#### SPECIAL WEATHER SUMMARY

The month was unusually warm and dry almost everywhere, with many areas reporting their lowest rainfall and highest temperatures for any August.

The prolonged dry spell, which has intermittently affected virtually every part of the State since early in the year, became particularly widespread during the month. Out of several hundred reporting stations, fewer than 10 exceeded their average rainfall for August. At all the others rainfall was below normal for the month. In fact, 60 percent of the rain gages on Kauai and Maui, and more than 90 percent of those on Oahu, recorded less than half their August average rainfall.

In the Honolulu area and elsewhere on eastern Oahu, rainfall was below normal for the fourth consecutive month, as it was also in windward east Maui and the Kohala section of Hawaii Island. Some places, like Olowalu Gulch in southwest Maui and Puehu Ridge in western Kauai, had their sixth successive month of subnormal rainfall.

The dry spell was coupled with unusually warm

weather. A number of localities recorded their highest August temperatures or average daily maximums of record. At Honolulu Airport the daily maximum reached 90° or over on 12 days in July and on 25 days in August. Sixteen new daily highs were established in each month. (But a possible connection between this outbreak of record temperatures and a change in the type of thermometer is being looked into.) Kahului, Maui, reported 94° on 2 days in August, the highest since the record 95° reading in October 1957.

Despite the extended dry, warm weather, only scattered light crop damage was being reported. Irrigation, where available, was being heavily used, but no serious water shortages were evident.

Several of the tropical disturbances that formed off the Mexican coast during August drifted toward Hawaii. On the afternoon of the 29th, satellite photos showed a tropical depression about 400 miles south of Honolulu, but it moved harmlessly northwestward.

Stations with Less Rain in August 1968 than in any Previous August

(40 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Least August Total	August 1968
OAHU			
Honolulu Substation	64	0.16 inches	0.15 inches
Manoa Tunnel #2	40	5,34	4.04
Nuuanu Reservoir #4	63	4.16	1.89
Palolo Valley	40	5.00	2.44
Pauoa Flats	40	6,48	5.72
Walanae Mauka	62	1.15	0.41
Waimanalo	69	0.38	0.20
HAWAII			
Kamuela	77	0,46	0.25

### HAWAII - AUGUST 1968

### SPECIAL WEATHER SUMMARY - CONTINUED

Stations which Recorded their Highest August Temperature of Record in August 1968

(10 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Highest August Temperature	Highest in August 1968
KAUAI			
Waiahi Lower	13	86 degrees	87 degrees
OAHU			
Makapuu Point	17	86	89 *
MAUl			
Hana Airport	17	88	89
Kahului WBAS	14	92	94
HAWA11			
Hawaii Volcanoes National Park Hq.	54	80	81
Opihihale 2	10	85	86

<sup>\* --</sup> Tied for highest in any month.

#### Stations which Recorded their Highest August Average Maximum Temperature of Record in August 1968

(10 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Highest August Average Maximum	Average Maximum in August 1968
KAUAl			
Kilauea Point	16	85.9 degrees	87.5 degrees**
OAHU			
Honolulu Substation	63	84.6	85.2 **
Makupuu Point	17	82.0	84.0 **
Opaeula	63	84.3	84.8
MAUl			
Hana Airport	17	85.4	87.0 **
Kahului WBAS	14	87.8	89.9
Wailuku	60	87.7	87.8
HAWAII			
Kona Airport	19	86.3	86.4 *
Naalehu * Tied for highest in ** Highest in any mont	17 any month. h.	83.7	84.0 **

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Russell Dorr Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

		1												Dave	of 3.4	n+h						-			_					UGUS'		19
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	_	of Mo	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	3
SLANO OF KAUAI																																Г
NAMULA 1111 A TYOESWOOD STA 985 A SST LAWA1 934 A EELE 927 A ALAULA 1110 A	2.10 3.03 .28 1.79	.73 .05 .12	.48 .05 .70 .01	:	:	.05 .02 .01	.01 .03	.06	.02	.05 .05 .11	:	•	.01 .24 .31 .07	.02 .20 .39 .06	.01 .01 .03 T	.33 .11 .04 T	.07 .02 .02	:	:	.06 .03 .01	.01	.02	.15 .05 .16 T	.01	:	•	.15 .45 .15 .06	.16 .07 .12 T	,02	.02 .11 .02		
LENANAHO 1006  KIPO 945  ILLIULA INTAKE 1050  ITAKE WAINIHA PC 1086  LIHIWAI RES 1131	9.44	1.70	.55 .10 1.70 +	.14	.06	.33	.04	.07	.04	.09 .36 .18 .39	.74	.12	.57	.92	.40	.53	.05 .20 .06	:14	.08	.06 1.35	.07	.12	.73	.06 .36 .08	10	.18	.47 .28 .53 .71	.09	.07	.10	.49	
NALDHULUHULU 1075 NEHA RESERVOIR 1092 PAA STARLES 1104 ALIA 1112 KAHA 944	1.75	.03 .15 .17 .03	1.45 .15 .03	:	:	.02 .12 .05	.06 .13 .03	.07	.03	.09	:	.03	.45	.17 .30 .10	.04 .12 .11	.26	.01	:	.75	.01 .15 .19	.03	.48	.05 .75 .05	.01	:	.02	.60 .20 .06	.08 .37 .12 .24	.05			
LAUEA 1134 LAUEA FIELO 17 1135 A LAUEA POINT 1133 LO 1033 LOA 936	3.08	.11	.12	.67	:	.22	.08	.01	.16	.32 .37 .03	.06	:	.17 .33 .31	.11	.04 .12 .13	.09 .01 .04	*11 *01	:	:	.11	.01 .01 .13	.04 .12 .39 .33	.40 .19	.06	.28	:	.34	.02 .13 .20	.06	.05	•	
LOA MAUKA 994 LOKO RES 1137 AKUIULA 935 HUE VARIETY STA HUE 1020 A	3.78	.84 .19 .11 .15	.20 .10 .40 .26	•	* * * * * * * * * * * * * * * * * * * *	.08 .12 .08	.16	.02 .08 .02	.06 .02 .02 .05	.14 .31 .02 .36	* * *15	:	.71 .57 .22 .07	.60 .12 .03 .25	.09 .01 .06	.80 .04 .06 .12	.06	.09	•	.14 .26	.10	.27	.35 .12 .02 .26	.17	:	.60	.64 .98 .01 .08	.06 .10 .07 .18	.11	.02		
HUE W8 AP 1020.1 R KAHUENA POINT 940.1 KAWELI 965 AN 1026 HIMI UPR CROSS 1083	.70 .67 .11 .22	.05	.07	.01	Т	.07	Т	Т	†		.06	.05	.02 .01 .05	.01 .07	•02	.23	.02	T	Т		.17	.06			.05	.02	.07	.03	.01			
OAA 1145 A UNT WAIALEALE 1047 U RIGGE 1035 (AILUA 01TCH 1051 A WAINIHA 1115	.19	2.30	.01 1.60 .52	* - * T	* .05	.36	.20	-	.11	.12	* * * * * * * * * * * * * * * * * * * *	* * *	1.36	.01	.02 -	.11	.11 - .12 .05	:	•	.16	-	.02 .08 .30	.04	.07 .11	.03	.53	.20 1.06 .13	.76	.10	.20 .14		
NCEVILLE RANCH 1117 HU RIOGE 1040 41 1013 ERVOIR 6 1004 414WA 930		.20 .27 .89	.25 .46 .24 .13	* 11	.18	.22 .11 .14	.18	.05	.05	.32 .07 .12	:	.20	.44	.17 .26 .43	.09 T	.18 .15 .43	.10 .06 .05	:	.01	.11	.10	·11	.55 .03 .07 .03	.07	.02	.14	.59 .13 .59	.08 .10 .08 .02	.01	.10		
AHA MOUNTAIN 990 A AHI LOWER 1054 AHI UPPER 1052 AWA 943 LUA KAI 1065 A	7.39 9.27	.95	.98 1.25 .02	.05	.03	.02	.10 .26	.02	.16	.06	.70 .62	.19	.08	.87 1.13	.12	.30 .36	.10	.03 .06	.11	.02 .03	.13 .05	.58	* .33 .01	.02	.05	.67 .99	.25 .25	.23	.15 .11	.10 .05	.02	7
MEA 947 T LANAL 931 4	1.28	.23	,22 ,51					.01	.01	,03		٠	.12	.07	.03	.03	.02			т		т	.01	.02			.12	T .05		.02		l
LANO OF DAHU																																
A FIELO 625 761 ETANIA PUMPING STA P 84 807 RCH COLLEGE LAIE ONUT ISLANO 840,1	.94 .27 .06 1.99	.02	•	.01	.23	.58			.07	.01	.03	.05	.01	.05				.01	.06	.22		.20		.01	.01	.04	.35 .01 .01	.22	.06	.01	٠	
PLANTATION 741 EMANO 1NTAKE 881 4 ULOA 725.2 4 OLULU 085ERV 702.2 OLULU W8FC 703 R	.26 T	:	92	:	* .04 T .02	:	: T	* * T	.04 T	:	* * T	:	T	.06	* * T	:	:	:	:	:	.03	* *	* * T	.01	* T	* *	. 42 *	: T	* * T	* * T	. 43 e	
OLULU 5U85TA 704 P A EXP STA 707 ANA 883 UKU 912 LUA F1RE STA 791.3		.16	٠	:	.02	† 4.42 .48 .09			.01	.15	.02	:	1.40 .1	.06 • 09				:	:,,	.01 1.78 .02	.01	.01 *	• 02	.01	• 02	.05 *	.01 .09 2.28	.04	.02	*°1	.04	1
THI RES SITE 777 WEDHE MAUKA 781 WEDHE RANCH 838 WALAMA 773 WALMAPAI 841	1.63	.18	•02 T	7	1.00 .21	.06	•04 T •48	т	.04	.02	*°°2	•01	.14 .01 T	.04 .08 T	.06	.01	.02	.01		.03 .30	.06 T	1.02	:15 .09	.05	.20	.05	T .37	.16	† .22	.02 .10		
A1 1KI 1NTAKE 880.2 A OO CAMP 8 855 LAU OAM 833 LUALE1 804 LUALEI WTR TUNNEL A		.10		:	:	.09			.20	.32	.12		• 1.8	.26	• • • •				•		• T	• •16	* 13 *17	* .01 .12	.55	.48	.02 1.05	.04	.02 .24	.08	.06	3
ALILO HOME 724.2 AHA KAI 796 AHA VALLEY 800.1 APUU POINT 724 OA 712	.10 .00 .00 .04 2.54		т		.36	.05				.09	.12		.10	.23						.11	.02	.09	.02	.09	.04	.12	.04	.14	.05	.04		
NOA TUNNEL 2 716 INALUA 770 JANU RES 4 783 JANU RESERVOIR 5 775 JEULA 870	4.04 .49 1.89 2.91	.32	* T	.04	.68	.26 .94 .11	*02 e		.06 • .02 .05	.10 .02 .32	.10	*	.1- .1- .25	.08	• 23				.20 .06 .16	.02	.20	.38 .14 .17	.08	.09 T	.04	.14	.03 .02 .59	.26 .08 .20 .25	.10	.05	.14	
OLO VALLEY 718 OOA FLATS 784 RTLOCK ROAO 724.4 L WAHIJWA 820.2	2.44 5.72 .24	.40 .76	.02	.06	.48	.20 .14 T	.02		.12	.14	.10 .18	.08	.01 .52 T	.08 T	•02	.02			.28	•12 •02	.20	.12 .T6	.04	.20	.06	.10 .20	.28	.16 .34 .03 .05	.04 .08 .04 .05	.04 .01 .01	.04	ı
STEPHENS SEM 788 ITALUS 2 780.5	4 .74 .95 4.18	.16 .22 .59	T T	.01	.06	.01	T .02	•02	.02	.03	.07 .01 .14	.02 T .27	.02 .07 .01	.04 .01 *	•01 • T	.02 *	.01	:	.16	.01 +	.93	T .33 .02	.03 .23 * T	.03 .03	:	.10	.05 T .94 .28	.05 .05 *	.01 T .02	.02 T .01	.01	
ALAE KAHALA 715 ALUA 847 ANAE 798	4 3.93 .27 4 .09 4 .00	T	* 16	.01	.04	.05			.05	.04	.01	* T	. 25	.14	.02	.06		•		.05		.01	.16	T .	.07	.05	.39 .05	.27 .06 .03	.08 T	t •	• 07	,
KANE 885 KIKI 717.2 LUPE RESV. 723.2	A 6.46 5.57 .13 A .51 A .20	.08	:	•	.05	e 2,46 •		:	* • 0 2 • 2 2	:	* T *	• • T •	. 42	* T *	:	• • • • • • • • • • • • • • • • • • • •	:	:	:	.84		:	* * .02	:	:	* * T *	.84 .02	01	.03	* T	6.46	1
IMEA 892	A 1.43	.02			.06	.42	• 02	+02	•	.01	•	*	. 12	.07	.05	٠	٠	*		٠	٠	.01	٠	.14	.06	.06	.35 .05 .12	.27 T	.07	.03		

See reference notes following Station Ind

Continued															D	nf 3.5	on th			_											I I AWAH T ZUDUA	1	968.
Station	Total		1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	10	31
15LAND F 40LOKAI																																	
• ALAUPAPA 563  «AUPARAFA 1 336  «ECONELECE PFNS 551		3 3	•	.06	1.45	٠	.50	.53					.17	. 2 2					.05	. 28		.05				.07			.02	.14	.02		.13
#40#4004 511 #3 #36#41 4P 524 #36#3#4 #40# 5#2,1 #46#3#4 5#0	2.5	53			.26	.25 1.01	т	*10 1.63			.07			.03					•	.09	•	.03		٠	•	•	٠	.10	.50	Ť.	.05 .02 .27	.03	. 25
ISLAND OF CANAL																																	
	1.6	54	.04	* 01 *	•	.29	.05	•	.01	.20	*11	*04	:	:	.05	•	.10	:	:	:	*11 *65	:15	:	.02 .01 .40	.06	:	:	.07	:	· :	.02	:	.03
MALAUFA 676 A		7.3			٠		.08	٠		٠	:	:		.04	:	:	* 15	:		:	.23	•	:	.58	٠	٠	٠	.07					
1564.0 0 4401																																	
ΔυπάσΙ-252 πάμεμκαμά θ Ε S «34 Δ πάμεμκαμά Ράγοι «32 Δ πάμεμκαμά RS 338 πάμεμκαμά SUMMIT 338.4	1.	5 5 3 9 4 7 5 2 3 9	.13	.04	.03 .01	.14	.04	.01				.09		*11 T	.12	.05					т					.01 T	.18	.03 T	.02	.02	.02	. 09	.02
ΜάΙΙΙΜάΙΙΕ 423 ΜάΜάΚυάΡυκο 485 Μάγά 354 Μάγά ΔΙΡΡΟΡΤ 355 Μάγά ΑΙΡΡΟΡΤ 355	1.1.3.6.	9 1 9 4	.03 .20 .16 .21	.06 T	T • 06	.12 .15 .32	.24 .07 .23 1.82	1 .09	. 22	.08 .05 .20	.02 •11 •06 •09	.05 .02 .04 .07 .27	.11 .02 .09	.08 .05 .20	.18 .37 .07 .17	.05 .14 .02 .20	T • 2 4	.02	т	.19	.30 .03 .10	.07 .10	.03	.03	.12 .01 T	.05	.15	.05 .04 .07 7	.07 .09 T	.02 .12 T	.04 .30 .82	.01 .09 .15 .17	.27 .61
MOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOMANU GULCH 341 KAANAPAUI AIRPORT	1 . 2 .	3 0 3 7 5 0	.16	.10	•		,38	:	÷07	:	.02	:	* * * T	.26	* * 04 * T	• 02	.03	:	:	•	.02	.09	.03	.02	:	:	:	.06	:11	.06		.30	.02 2.60
KAHOMA INTAKE 374 KAHULUI HB AP 398 KATLILII 436 KAILUA 446 KAUAULA INTAKE 375	6.	2 2 6 9 6 2 6	• • 5 2	2.97	.09	.29	• •17 •41	.04		* 36	.09 .24	* T * 6 B *	* * 36	* T * * 52	* T * .32 .08	*35	•	.23	•	.01	•	:	:11	.04	.03	.21	* T * .26	.14 .17	* 15	.16	T + 4	.10 .96 .15	17
ΚΕΔΗΔΑ 410 ΚΕΔΝΆΕ 3+6 ΚΕΔΝΆΕ 3+6 ΚΙσΕΙ 311 ΚΙΡΑΠΟΙΟ 258	10.	00	.51	.03	٠	.03	.13	.02	٠	•	• • • • • • • • • • • • • • • • • • • •	.20	.21	.38	•	•	٠	٠	٠	.41	.03	.12		.06	•	•	.59	.06	.23	.08	• 10	.02	. 53
KULA HEIGHTS 323.2 KULA SANATORIOM 267 LAHAINA 361 LAUNIUPONO INTAKE 376 AUNIUPONO VILLAGE 372	3.	34	.06	•09	Т .	.30	.20	т.	٠	•			•							.46	.38	• 07						T •			• O2	.14	, 95
LUPI UPPEP 442 MAMINAHINA 466 NAKALELE -FLO 60-497 OLINDA 332 OLOAALU 296	6.	30 75	.12	•	:	.10	1.04	.01					:	• • 2 = T	* 26 * T	:	:		:	:	.08	* * T	•	.01		• • T	* .02	.05 .09	•	.04 T	:13	.30	.49
DIDMALU GULCH 377  PAAKEA 350  PAIA 406  PANILEIHULU 259.2  PAUHELA 490	10.	20 27 1 58	.01 .04	.17	.05	.57	.31		.04 .02	.33	. 43 . 03	.70 .02	.28 .05	.83	.53 .11 .18	.45 .45	* •11 •	*19		.14	.06	.04	.31	.29	.23	T	.84	.47	.25 T	1.20 .14 .10 .32	.12	.20	.26
POHAKEA BPIOGE 307.2 POLIPOLI SPRINGS 267.2 PUOHUKAMOA Z 343 PUU KUKUI HAKAI 472 PUUKENE 396	1.	10		:		.10	*	*	*		:		*	:	*	*	:	:	:	:	:	:	:	:	:	:	:	:	:	:	* 13		1.50
SPRECKELSVILLE 400.2 THIN GATES 261.3 UKULELE 333 UKUMEHAME 301 ULUPALANUA RANCH 250	3.	06 00 05	•		٠	.00	1.04	٠		٠	•	٠		٠	T .				٠			•		•				•		•	† •	• {	3.05
#AHIKULI 364 #AIEHJ CAMP 484 #AIHEE VALLEY 482 #AIKAMOI 449 A		30 24 54	.30			.17							.05		.03				٠		.43					•		.02	•	•	* 7	.07	*
#AIKAMOI NAM 336 A #AIKAMU 390 #AILUKU 392 #AIOPAI RANCH 256 A	:	16	.01	.01	.01	.16	.01	.03	.01	.04	,03	.02	٠	.02	.49	.23	Т	.07	•	•	.07	Ť	.02	.06	.02	.19	.55	.23 T	.17	.08	.38		.93
ISLAND OF HAWAII																																	
AMUA UMI 79 ARINI 182+1 EAST MONUKANE 183+2 MAINA 214 MAKALAU 142	6. 6. 3. 7.	97 50 09	.23	.11 .05 .57	.20	.44		.07 .07	+10	.18 .01 .21	.03	.19	.08 .24	.77		.79 1:08 .45		.02	:	.30	*04 *11	:10	.12	.17	.40 .13	•	.05	.43	:37	.03	.02	.10	6.50
#AUEMAUMAN 52 #AUEPNULA 117 #AUEPNHAWN 111 #AWAII V CONS NP MQ 54 #AWI 168		43 09 74	.01 .15	* * T • 04	:	* * T	.36	.02 .01		.04	* * * 27	* * * * * * * * * * * * * * * * * * * *	* * *07	.28	* * * * * * * * * * * * * * * * * * *	* * *13	.07 T	• • • 02	.06	1.29	* * .55	.01	.09	.16 .02	. 22 . 31	.01	.36	.06	• • • • • 0 7	.01	*	.17	2.21
HILO HB AIPPORT B7 H U ALOA 70 H U ALOA 70 H U ALOA BEACH 68 H NAUNAU 27 H 50HIMA 137	6.	98 16 08	.06 *	.02			.07	.34	.25	.18 .95 1.05	1.54	٠	.36	. 47	.09	.37 .24	.06 •14	.02	1.60	1.00	.04	.01		.05 1.13	.03 .02	.18	.06	.03	.01 .22	.03	.01	•	2.06 3.98 1.24 .40
# 50King 81:1 #150MU MI KA 138 # 7040UA 71 #04King 172 HUEHUE 93:1	15. 2.	52 60 69	.03 .07	+05 +72 +	.12	:	.31	.02 .17	.27 .36	.06				.84	.07	.47 Z.AR •	.32			1.37	.02	2.96	:11	.02	.53		81	.19 1.45	.22	.04	:01	.14	.20 2.60 1.69
+ 3ALA I×I 12 *AA*ALOA 29 *AI*ALIU 73.2 *ACAPANA 40 1 67.8 *AM3JA 4: 2 5	1. 6. 7. 3.	09 40 16 52		.3 .15 .36	. 08	.18	.26	.06	.40	.63	.10 .25 .11	.23	.06	.04 .36 .15	.03		.04		.08	.77	.19	.02	.70	2.92	.17		.15	.05	.03		.06	.12	.05
KAMUELA 192.2 KAMUELA AIRPORT 191 KAPARALA PANCH 36 64POH LANOING 93.5	* T	25		T +04 +94	7	.75	.05		.03		1.10	*03 T	٠	* 0 2 T	т.	†°5	.01	1.89		:	т .	.10			.02							.19	.02 T

See reference notes following Station. Inde - 100 -

										722		_	r 1,	٠			-	11,	OT.	4													
Continued																															HAWAI		10.0
Station		Total													Day	of N	ionth														WORDS		1968
		ŭ	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KEALAKEKUA 26.2	Δ	2.71 7.39 7.37 5.83 4.25	.31 •	1.28 .10 .13	.07	.06	.30	.05 .04 .08	.85 • .53 .51	.29	.57 1.82 .04 .27	.71 .12	.85 .23 T	1.16 .36 .51	.51	1.48	.29	2.45	.16	.93 .53 T	.78 • .45	.04	.06	.12 .25 1.95	.53 .92 .07	.03 0 .12	.62	.70 • .28 • .01	.20 .12 .07		.05	.81 .92 .55	.06 . .91 . .55 .
KIPA 89.2 KOHALA 179.1	4 1 4 1	2.06 2.58 2.30 3.10 3.07	.04 .28 .20	.32			.52 .80 .65	* .12 T	1.18 .03 .15	.20 T	* .13	.85	1.01	1.30 .21 .20	.02	1.90 .31 .38	.38 .01	e T	•	.53	.64	.01	.01 .04 .17	.04 .01 .17	.81 .22 .30	.02	.82	.40 .11 .31	.09 .02 .41	•	.11 .05	2.06	*
KOIAME LOMER 196 KONA AIRPORT 68.3 KONA VILLAGE 93.8 KUKA1AU 222 KUKUIMAELE MIC 199		4.24 2.06 .91 4.17 2.65	.05	.78	-10		• 22	e T	.30 .40	.80	1.20	.23		.03 .02 .12	.04	1.61	. 29	1.34	•	.40	* †04	.02	.10	.08	. 42 T	.02	e T	• 07	*	٠	* T	.50	.90
KUKUIHAELE HILL 206 A KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68.2	4	2.88 3.97 1.85 6.55 0.21	.14 .04 .06	.06 .03 .01		.53	.65	* *26	.25 .37 .12	.04 .11 .04 .04	.18 .03 *	12 +05	* 13 *10 *	•11 •33 •04 •	.19	.75 .22 .02	.08	* .22	:10	.29	.30 T	T *	.01 T	.07	.66	.03 5.50	.10	.32	.01 .10 T	* T *	.08	.32	.08 .23 1.05
MANUKA 2 MAUNA KEA BEACH 98 MAUNA LDA SLOPE OBS MIOOLE MOLUALDA 68.1 MIOOLE PEN 147.1		2.2I .74 2.14 6.09	•	.22	.08	.10	.78 T .05	T .	.75	.16 2.12	T :	:	:	.31	.12 .41	.04 .03 .65	.20		.55	.49	.15 .52 .01		.10	T	.20	:		.04	.01	:		T .	.77
MOAULA 18 MOUNTAIN VIEW 91 NAALEHU 14 NAPODPOD 28 NAULU FOREST 38.6	1	.70 1.91 .30 3.85 2.19	.65 •	.24	.01	:10	.55 .05 .19	†13 †	* *58	.63 •	.13 .10	.25	* 4 8 *	.73 .01 1.22		.59	*17		:	.93	.79 .02	.05	.04	.30	* 1.23 *	* 17	.71 .10	.42 2.03	.15			.89	.70
NIULI1 179 ORALA 223 OPIHIHALE 2 24.1 ORCHIO LANO EST 91.5 PAAUHAU 217	10	2.90 4.90 4.75 0.72 2.55	.24	.05 .05 .13 2.20	.20	.01	.78 .01 .21 *	.36	.03 .21 .05	.01 .65	1.66	.20 .01	.32 .50	.18 .37 .01	.15 .07	1:50 T	.01 .30 .10	2.26	.09	* 15 * 05	.02	.83	.10	.02 T .05	.14 .60 1.58	.02	* .50 .13 *	.14 .06 .03	.14 .03 .05	.33	.04	.01 3.02	.07
PAAUILO 221 PAMALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144.1	10	3.62 .51 0.54 8.50 3.91	.22	.01	.18 .12	.10	.01	.27	.15 .29	.20 •	.05	.15 .23	.16 .45 •	.67	.32	1.30 .77 .58	.10 .21 .59	* †		.04	.03	.04	.05	.23 * T	.61	.03	.13 .01 1.39	.81 .53	.20	. 50	.36	1.06	.01 . .26 . .19 . 8.50 .
PAPAIKOU MAUKA 140-1 PEPEEKEO MAKAI 144 PIIHONUA 89 A POHAKULDA 107 A	1 7	2.11 7.32 5.20 .50	.03	.34	.02	• 03	.23	•11 •13 •	.57 .11	.18 .07	•31 •04 •	.80	.72 .40	1.26	.57	2.37	.75 .23	• 01	:	.57	.01	.01	.05	.06	.59 .17 .25	.03	.70 .77	.73 .57	*17 *22		;°11	.51 .48 5.20	.08 .
PUU KIHE 120 A PUU LAAU 102.1 A PUU LEHUA 73 A PUU MALI 113 A PUUOKUNAU 167 A	1 4	.10	.05	.01	•	:	.21	:	• • • • • • • • • • • • • • • • • • • •	:	:	:	:	.08	* * *	.16	:	:	:	:	:	:	.02	.02	•	•	•	* * *	* * * * * * * * * * * * * * * * * * * *	.05	* * * * * * * * * * * * * * * * * * * *		.51 . 3.05 . 4.10 . .55 .
PUU 00 82 PUU WAAWAA 94.1 A SAOOLE ROAD 1 84 A SOUTH PDINT CORRAL 3 A UM1KOA 118	14		.06	2.00	.06 .01	.11	.64	:	.22	•07	3.18	.18	.31	.32	• I 9 •	.32	·12	4.10 * T	:	.25	.05 1.75 +	.03	• 01	*17 T	.25 3.51	:	.27	•10 •	.12	:	.07	.47	.15 .
UPOLU POINT USCG 159.2 WAIAKEA SCO 88.2	11	.87	.07	.06 .19	.01	• 40	. 42	.05	·10	.01 .15	.43	.01	.01	. 94	.77	1.36	.36			.75	.31	.01	.02	.41	.04	.01		.01	.21		.04	,79	.02

# SUPPLEMENTAL DATA

		(		nd m.p.h.	)		Relati	ive hum		rages -		Num	ber of d	lays with	precip	etetion			inset
Station	Resultant	Resultant	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI 8 AM	DIAN TI	4E 8 PM	Trace	01-09	10-49	5039	1.00-1 %	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO+ HAWAII+ WB AIRPORT	26	0.8	5 . 4	17	E	31+	88	81	73	85	3	8	13	5	٥	1	30	38	7.5
HONOLULU: OAHU: WBFC	5	13.2	13.8	28	NE	11	73	67	50	69	14	3	٥	0	0	0	17	74	5 • 2
KAHULUI: MAUI, WB AIRPORT	5	13.3	14.3	29	NE	24+	81	71	56	73	10	1	1	0	0	0	12	78	5.0
LIHUE, KAUAI: WB ALRPORT	6	10.8	11.3	20	E	12	84	77	70	81	10	13	1	0	0	0	24	70	6.8

### DAILY TEMPERATURES

HAWAII AUGUST 1968

																Day	of Mo	nth													OGUS		1968 age
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Aver
ISLAND OF KAUAI																																	
KANALOHULUHULU 1075	MAX MIN	7 4 6 2	73 61	73 51	76 52	77 64	78 63	77 63	75 59	76 60	76 60	74 59	72 63	75 62	77 61	76 60	75 54	77 58	73 52	74 59	74 63	75 62	76 60	76 59	78 58	76 60	7 2 6 2	77 59	78 55	79 58	77 54	77 55	75.6 59.0
KILAUEA POINT 1133	MAX	87 72	88 75	87 71	87 76	88 71	8 5 7 6	86 76	87 72	87 75	86 75	87 76	87 72	8 8 7 5	87 73	87 71	87 70	89 75	90 76	88 76	88 75	87 72	87 76	87 75	88 73	8.8 76	88 73	89 74	88 74	88 76	88 76	90 74	87.5 74.1
LIHUE W8 AP 1020+1	MAX MIN	8 4 7 4	83 72	83 71	84 67	85 71	85 76	84 74	85 70	8 5 7 5	8 4 7 2	84 75	85 73	85 74	85 74	85 74	84 69	85 71	84 72	85 76	85 75	84 75	85 76	86 74	85 71	85 75	85 75	85 75	85 75	85 75	85 75	85 75	84.6 73.4
MAKAHUENA POINT 940.1	MAX MIN	88 74	87 74	85 73	87 74	87 75	89 77	88 7 <b>7</b>	87 76	87 75	87 73	86 76	80 74	87 74	87 75	87 74	87 72	87 76	88 74	88 75	88 77	89 76	88 77	88 77	88 72	88 75	88 78	8 <b>7</b> 76	87 76	87 74	88 76	88 78	87.2 75.2
MANA 1026	MAX	88 71	88 70	89 68	88 71	89 67	91 66	90 67	89 70	90 70	90 70	90 68	92 67	90 67	91 67	92 68	92 68	90 68	90 69	90 71	89 71	88 69	90 70	90 68	89 69	90 70	90 68	90 67	91 69	90 69	91 67	89 68	89.9 68.6
NIU RIDGE 1035	MAX	85 66	84 65	86 66	85 65	84 64	86 66	87 66	87 65	86 66	86 65	85 65	85 64	85 64	86 65	86 66	87 66	86 65	87 66	86 65	87 66	86 65	86 64	8 5 6 5	86 65	87 66	86 65	87 66	87 65	86 66	86 65	87 66	86.0 65.3
MAIAHI LOWER 1054	MAX MIN	8 2 6 9	8 O 6 6	8 3 6 5	83 66	83 65	85 69	83 68	83 67	81 68	81 67	8 <u>1</u> 6 8	87 67	8 2 6 6	8 2 6 5	8 2 6 7	8 2 6 5	83 67	84 65	85 67	83 69	83 68	8 2 6 8	8 3 6 8	84 65	83 68	82 66	8 2 6 9	83 66		83 66	83	82.8 66.9
ISLAND OF DAHU																																	
EWA PLANTATION 741	MAX MIN	90 73	90 72	90 70	89 73	89 75	88 72	87 72	88 72	89	88 71	89 71	86 71	8 8 7 2	8 8 7 2	90 69	89 65	89 70	92 70	89 70	90 72	87 73	90 71	89 70	89 70	89 72	89 71	89 71	89 72		90 72	8 8 6 9	88.9
HDNOLULU #8FC 703	MAX MIN	90 76	90 76	92 73	89 74	91 77	90 77	91 76	89 76	91 76	89 76	90 76	89 76	90 76	89 76	90 75	92 69	91 76	92 74	91 75	92 76	90 77	91 76	90 75	91 75	90 77	90 76	90 74	90 75	90 75	91 76	89 75	90.3
HONOLULU SUBSTA 704	MAX	86 75	85 76	86 76	86 76	87 79	87 78	8 5 7 8	86 77	85 77	84 76	85 76	84 74	84 76	84 75	84 76	87 73	86 77	86 77	85 76	86 77	84 78	85 78	84 77	85 77	84 77	85 76	84 75	85 76	85 78	8 7 7 7	84	85.2 76.5
KAHUKU 912	MAX	86 76	86 76			86 74	8 5 7 7	8 5 7 6	85 76	85 74			86 76	84 75	8 5 7 7	85 76	86 76			88 73	88 77	87 77	86 77	87 78			87 77	87 75	86 75	86 77	87 76		86.0
KANEOHE MAUKA 781	MAX	84	86 73	85 72	85 72	82 73	85 74	8 2 7 5	84 74	82 73	85 73	8 5 7 5	85 75	8 2 7 3	8 5 7 5	8 5 7 5	85 70	81 70	87	87 73	86 74	8 5 7 5	83 74	84 73	84 74	85 75	85 75	86 75	84 75	86 72	86 74	85 74	84.5
LUALUALEI 804	MAX	88	89	87	87 76	86	89	89	86	87	88 78	89 78	88	86 76	87 76	89	89	88	85	87 73	86 75	89	86 76	87 76	88	88	88	89	86	89	87	90	87.6
MAKAPUU POINT 724	MIN	81 76	83	86	85 75	84	87	83	8 2 7 5	88	81 75	80 74	87	81 76	8 2 7 5	88	8 2 7 5	83	89	85 77	83	86	82 76	81 75	87	81 75	83 73	87	8 2 7 5	84	88	84	84.0
OPAEULA 870	MIN	83	83	85	89	82	85	85 70	84	83	85 69	82	84	80	85 69	85	86	89	91	87	86 67	86 70	83	84	88	84	85 68	85	83	84	84		84.8
PRI WAHIAWA 820.2	MIN	87	88	90	86	90	88	90	85 69	88	86	87	87	86	86	87	87	91	90	91	90	90	87	88	89	88	89	89	88	8.8	88	88	88.1
MAIALUA 847	MIN	89	91	88	91	87	70	70	88	89	88	71	87	86	88	89	90	92	91	90	90	70	68	89	70	70	89	90	89		67 89	90	89.1
WAIKIKI 717.2	MIN	71 88 75	88	87	89	70 89	88	89	88	88	88	68 87	87	87	87	87	88	92	70	92	89	70	67 89	88	88	89	70 89	89	70	67 89	88	83	88.2
	MtN	15	76	72	73	77	76	76	74	75	75	75	76	75	76	75	67	74	74	72	76	74	76	76	76	75	73	74	73	76	75	78	74.7
ISLAND OF MOLOKAI																																	
MOLOKAI AP 524	MAX	83	8.5	84	8.5	82	86	84	84	83	84	8.5	84	84		8.5		87			86	86	85	85	85	84	8.5	86	86	86	84	87	84.9
	MIN	70	71	71	74	75	75	75	70	70	71	74	74	74	74	71	72	71	72	73	73	73	75	71	72	75	73	73	73	70	72	71	72.5
ISLAND OF LANAI																																	
LANAI CITY 672	MAX	79	78	79	80	78	81	79	79	79		80		79	79	79	79	81	81	81	80	80	80	79	81	79	8.2	8 2	83	81	80	83	80.0
	MIN	68	69	69	69	70	69	68	69	69	68	68	68	67	68	67	67	67	68	68	67	69	68	68	64	63	64	65	65	67	65	65	67.3
ISLAND OF MAUI																																	
MALEAKALA RS 338	MAX	66	67	66	66	65	71	70	69	65	66	63	68	67	70	67	68	71	70	65	67	67	68	66	65	67	66	67	71	66	65	67	67.2
HALEA×ALA SUMMIT 338.4		47 57	48 56	59	59	52	52	50	57	59	46 59	4.5 5.7	64	45	45 59	59	48	5 8	48	56	45	61	46	59	49	53	42	48	52	50	45 61	61	58.8
HANA AIRPORT 355	MIN	4 Z 8 7	85	4.6 8.6	45 87	86	46 85	47 86	43	45	46 87	86	44	46	43 86	41	87	42	41	41	44	44	48	43	40	39	41	43	37	39	37	37	42.8 87.1
KAANAPALI AIRPORT	MIN	72 88	74	71 88	72	75	76	74	71 87	72	72	73	71	73	71	72	67 89	69	71	70	71	74	70	73	70	87 71	73	72 89	72	70	70	71	71.7
×∆HULUI W8 ∆P 398	MIN	74	69	71 89	72	66	72	75	74	72	68	69	73	68	73	72	70	69	67	8 8 6 7	72	73	88 73	89 74	90 74	89 74	89 71	74	70		88 73	73	88.4
KAILUA 446	MIN	74	74	74	71	71	69	75	74	75	74	73	73	73	73	88 72	88 66	90	67	68	91 68	91 68	70	73	73	90 74	91 73	90 74	72	73	67	73	89.9
KEAWAKAPU BEACH 260.2	MIN	69	67	67	68	67	71	71	69	68	68	69	69	67	68	82 66	82 66	66	66	66	83 69	69	8 2 7 0	8 2 6 9	82 69	82 68	8 2 6 9	8 ? 6 9	8 2 6 9		82 69	83 69	82.0 68.2
KULA SANATORIUM 267	MIN	70	69	72	69	72	69	68	92 68	71	91 67	91	93 69	90	92 66	90	88 67	90 67	91 70	92 71	94 69		91 66	93 66	92 65	93 69	92 66	92 66	91 77	92 69	90 70	94 66	90.8
LAMAINA 361	MIN	59	76	72 61	60	76 60	75 59	76 59	75 59	75 60	75 58	76 59	77 59	75 58	77 59	78 57	78 58	76 59	75 59	75 57	75 57	74 59	75 57	77 56	78 57	76 57	76 57	76 56	76 56	75 57	74 57	76 57	75.6 58.2
FWUNING 301	MIN	88	89 71	87 72	72		89 73	89 70	88 73	89 73	89 71	88	89	89		89	90	89	89	89	89	89	88 70	88 71	89 70	92 70	88 70	8 e 7 1	8 8 7 2		87 72	89	88.7

Continued										DA	IL	Υ '	ΓE	MP	EF	RA'	[U]	RE	S												AII	т	196
Station																Day	of Mo	nth															Average
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
Alluku 392	MAX MIN	87 75	87 74	88 74	88 74	8.8 76	87 74	89 75	87 75	88 74	87 75	87 74	86 74	84 74	87 74	8 8 7 4	89 72	89 72	90 74	87 74	89 74	89 75	88 74	89 74	87 74	89 74	88 74	89 74	88 74	88 74	88 74	90 73	87. 74.
* * *																																	
ISLANO DE HAWAII																																	
AINA 214	MAX MIN	85 67	85 67	85 66	85 66	85 71	84 68	84 69	85 67	85 67	85 67	83 64	84	84 68	84 68	81 65	8 4 6 4	8 5 6 5	84	86 66	85 66	86 66	85 67	86 65	84 68	85 66	85 67	8 5 6 7	85 66	85 65	85 66	86 68	84.
AWAII VOLÇNS NP HQ 54	MAX MIN	72 56	68 57	74 57	74 57	75 60	66 57	72 57	69 57	70 55	70 55	70 55	70 57	67 56	7 2 5 8	72 51	74 55	77 53	73 54	70 55	71 56	71 58	81 54	70 57	71 56	73 56	79 56	68 56	73 55	74 52	71 56	72 55	71. 55.
ILO W8 AIRPORT 87	MAX MIN	8 2 6 9	8 4 7 0	84 69	86 69	8 5 72	86 71	84 71	85 69	85 67	81 70	81 70	8 2 70	8 4 6 9	83 69	85 68	85 67	83 68	8 5 6 9	85 68	84 68	82 69	83 67	8 4 6 9	84 68	85 68	85 70	8 5 6 9	8 5 6 7	85 68	85 69	8.5 70	84.
Alnallu 73.2	MAX MIN	85 67	8 1 66	81	83 67	83 68	80 70	81 68	8 O 6 6	79 65	82 66	79 65	81 67	80 67	82 65	83 67	83 66	8 2 6 5	83 67	84 65	8 2 6 3	80 67	79 67	80 68	81 65	80 65	8 1 6 5	79 65	8 1 6 4	80 66	83 68	83 65	81.
AMUELA 192.2	MAX MIN	76 60	73 61	75 62	80 63	79 63	78 60	78 60	79 60	75 60	76 60	75 59	75 60	75 60	74 59	75 60	78 55	76 57	78 55	78 55	80 54	78 55	78 58	75 60	75 60	76 60	78 58	76 58	76 53	76 51	80 54	79 60	76. 58.
AMUELA AIRPORT 191	MAX MIN		77 60	78 60	81 58	80 62	74 60	79 58	77 59	78 52	76 59	77 61	75 58	77 60	79 61	77 57	79 54	78 54	81 54	79 58	77 54	77 54	76 52	77 52	77 54	78 52	79 <b>5</b> 9	78 65	78 51	78 51		78 52	77. 56.
EAAU 92	MAX MIN	8 4 6 9	82 69	87 68	87 68	87 68	85 68	86 69	86 69	8 5 6 7	86 67	86 67	86 67	82 67	84 67	84 67	85 66	86 67	86 67	86 67	85 68	81 69	8 5 6 6	85 68	86 67	86 67	86 67	85 67	8 5 6 5	8 5 6 5	86 67	84 65	85. 67.
EALAKEKUA 26.2	MAX MIN	83 68	8 O 6 5	82 68	82 67	80 68	81 70	81 68	81 66	78 66	82 66	8 L 6 5	82 68	79 66	81 66	82 67	8 2 6 6	8 2 6 5	83 66	84 67	83 65	79 67	80 67	80 67	81 66	80 66	79 66	80 65	81 65	80 66	82 67	81 66	81.
DHALA MISSION 175.1	MAX MIN	83 70	81 70	82 70	84 70	83 72	80 72	82 72	83 71	82 71	82 69	81 70	81 70	81 70	83 70	82 70	82 67	83 68	84 67	84 71	84 71	84 70	82 71	83 70	83 71	83 67	83 69	84 70	83 70	85 67	83 67	83 64	82 69
ONA AIRPORT 68.3	MAX MIN	86 69	86 68	87 69	87 68	86 68	86 68	86 68	86 69	8 5 6 9	85 68	87 68	86 68	86 68	86 68	86 68	87 69	87 69	89 70	88 70	88 69	8 8 6 9	87 68	86 69		8.5 6.8	87 69	8 5 6 8	86 68	86 68	87 68	87 69	86 68
ULANI CAMP 79	MAX MIN			70 50	70 50	69 48	72 50			70 47	72 48		73 47			75 49			73 48	68 47	66 48	66 49		68 48	67 49	69 52		67 50			69 51	70 45	
AUNA KEA 8EACH 98	MAX MIN	89 75	90 75	88 76	90 70	88 76	86 75	86 75	88 75	88 74	8 8 76	90 75	88 75	88 74	89 74	88 73	8 8 7 3	87 73	90 74	89 72	88 73	88 75	88 73	88 75	90 74	92 74	93 74	8 8 76	92 72	8 <b>8</b> 7 2	88 75	88 76	88. 74.
AUNA LOA SLOPE 085	MAX MIN	50 37	56 39	56 42	57 40	58 44	59 39	58 38	55 38	57 39	58 42	57 40	60 41	57 40	54 37	51 37	50 36	52 36	50 35	53 35	53 35	57 37	53 38	56 36	58 37	58 36	62 39	63 46	65 43	58 39	55 39	55 40	56 38
DUNTAIN VIEW 91	MAX MIN	78 64	77 64	82 62	84 63	83 64	78 65	81 65	81 64	78 62	80 62	78 65	75 64	75 63	79 63	76 62	60 61	83 61	78 65	79 62	80 63	8 2 6 3	79 60	78 61	81 63	81 64	78 63	80 63	82 59	83 59	80 60	81 61	79. 62.
AALEHU 14	MAX MIN	83 71	82 68	81 68	85 68	86 68	8 1 72	84 73	84 73	64 69	84 69	84 69	85 69	81 69	85 69	84 68	84 70	84 70	84 70	85 71	85 71	84 71	84 71	84 71	84 71	84 71	84 70	83 69	84 69	85 70	85 69	8 5 6 9	83 69
UKALA 223	MAX MIN	84 73	83 71	8 o 7 o	85 70	85 70	83 75	84 72	84 70	84 73	85 69	79 70	85 69	83 68	8 1 70	8 1 6 8	82 70	84 68	84 68	85 69	83 72	83 73	84 71	84 71	83 69	83 68	84 71	84 71	83 71	83 71	84 75	8 4 6 8	83. 70.
PIHIHALE 2 24.1	MAX MIN	84 66	8 2 6 5	82 64	80 66	82 67	83 68	80 64	77 63	81 63	79 63	82 64	82 64	79 63	83 63	83 65	80 65	84 64	83 64	86 62	82 65	76 67	82 64	80 64	81 64	77 63	81 63	78 62	77 62	83 63	82 64	79 64	81. 64.
AHALA 21	MAX	83 66	80 66	85 65	86 67	85 68	79 68	83 69	84 65	83 66	84 65	84 70	82 65	82 64	86 64	84 64	84 64	84 64	85 68	8 2 6 4	83 64	83 65	84 66	83 65	85 65	84 66	84 66	8 1 6 4	85 64	84 63	84 65	85 67	83 65
POLU POINT USCG 159.2	MAX MIN	86 72	87 72	85 72	87 73	87 74	88 74	86 73	86 73	87 74	86 71	8 5 7 2	8 5 7 2	86 72	86 72	92 75	87 73	86 74	88 74	89 72	88 73	85 71	86	87 67	8 o 7 6	87 70	86 71	86 76	88	86 71	87 74	89 71	86. 72.

# EVAPORATION AND WIND

Station																Day	Of M	onth															7 5 6
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * * ISLAND OF GAHU																																	
HONOLULU OBSERV 702.2	EVAP WIND MAX MIN		25 95	35 96	23 99	25 92	3 4 8 6	40	34	36	49	55	52 97	46	46 95	97	36 97	2 1 9 9	22	27 97	29	36 93	37	35	57 97	50	39	41	3 8 9 4	31 96	37	31	1147 95.2
* * * * IŞLANÖ OF HAWAII																																	
HILO W8 AIRPORT 87	EVAP WIND MAX MIN		90	59	50 91		56	4.8	47	50		51	.07 45 84 70	.14 63 86 71	46	40	. 29 40 85 68				. 14 36 90 68			36 92	36 93	38		33 92 67	47 89 68			47 90 68	5.538 1403 88.3 68.7

# STATION INDEX

	6 -	.ω	ы	z o	BSERVA TIME A				NO.		ω	ы	DE	Z.		ERV.	ATIOI AND	1
	DIVISION DIVISION	DRAINAGE	LONGITUDE	ELEVATION TEMP.	PRECIP.	ES	OBSERVER	STATION	INDEX NO DIVISION	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		TABL		OBSERVER
I - AND OF KAHAT				1 -				ISLAND OF LANA!										
ANAHOLA 11   A 0 BYOTS SUDD 5'4 985 A 0 A 1 LAWAY 936 FAW 3 RESERVOIR 1094-1 0 FLEFELF 927 HALAULA 111 A U HAL-NAMANK 1 06 A 1 ANALII FORNEL 1 5 1	140 02 KOLOA 1145 01 KAWAIHAU 2240 02 KOLOA 1456 02 KOLOA 1456 02 KOLOA 1457 02 KAWAIHAU 1735 01 KAWAIHAU 170 01 KAWAIHAU 170 01 KAWAIHAU	2 21 5 1 22 0 2 21 5 2 21 5 2 21 5 1 22 0 2 21 5 1 22 0 2 21 5 1 22 0	7 159 19 6 159 32 5 159 30 6 159 22 4 159 35 7 159 19 8 159 26 5 159 28	1610 116 120 440 350 163 253 490 1218	7A 7A 7A 6A TA 8A	k k	HC BPYGE SUGAR CO. LIHUE PLANTATION CO HC BRYGE SUG CO LTO HC BRYGE SUG CO LTO HC BRYGE LANTATIOL HC BRYGE SUG CO LTO LIHUE PLIN CO LTO GROVE FARH CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO ENOVE FARH CO LTO LIHUE PLIN CO LTO ENOVE FAN CO LTO	KAUMALAPAU MARBOR 658 A LANA] C177 672 LANAIMALE 684 A MAHANA 694 A MALAUEA 676 A WALAKEAKUA 685 A	5301 01 5704 01 6012 01 9021 01	LAHAINA LAHAINA LAHAINA LAHAINA LAHAINA LAHAINA	1 1 1	20 46 20 47	156 53 156 55 156 55 156 52	1640 30 1620 3370 1430 1135 2040	7s	HI HO HI WM	c c	OOLE COMPANY OOLE CHPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
	2227 07 LIHUE 2227 01 HANALE1 1974 01 HANALE1 1099 03 WAIMEA 1109 01 KAWAIHOU 1159 01 KAWAIHAU 1982 01 KAWAIHAU 1982 01 KAWAIHAU 1982 01 KAWAIHAU	2 22 0 1 22 1 3 22 0 1 22 0 1 22 0 1 22 0 1 22 0	2 159 28 9 159 34 1 159 26 8 159 40 8 159 22 5 159 20 6 159 19 159 23 159 23 159 25	800 1070 690 400 3600 800 174 9	7A W1 7A 8A 7A 7A 7A 8A 6A		LIMUE PLTN CO LTO  MC BRYDE SUG CO LTO  KILAUER SUG PLTN CO  KANALOMULUMULU P. S.  LIMUE PLANTATION  LIMUE PLIN CO LTO  LIMUE PLIN CO LTO  KEKAMA SUGAP CO LTO  KILAUER SUG PLO TO CO  KILAUER SUG PLO CO  KILAUER SUG PLO CO	FIELO 46 474 HAELAAU 477 HALEAKALA B E S 434 A	0790 04 0995 01 0999 01 1004 02 1008 02 1016 02 1075 01	LAHAINA LAHAINA MAKAWAO	4 1 1 2 2	20 37 20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 52 20 55	156 38 156 36 156 18 156 19	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8 Y 8 E	7A 6A 8A 8A 5A	κ κ κ κ κ	ULUPALAKUA RANCH MAUI PINEAPPLE COMPANY U OF HAWAII EXP STA HALEARALA PANCH CO HALEARALA NAT PARK U OF MICH HI HARLA OBSY PHIL SCOTI HAUI PINEAPPLE CO. HAWAIIAN COM + SUG CO
# ITANO [037+] 4 *11:1-33 4 *0L0A 936 *0L0A 936 4; 4 *0L0X4 965 1137 A 4 *0L0X4 965 1137 A 4 *ULX 11 LA 235 LINUE VARIETY STA 5 HNUE 1322 A 5	1568 01 HANALEI 1653 03 MAIHEA 1739 03 MAIHEA 1742 03 KULOA 1742 02 KULOA 1758 01 KAWAIHAU 1950 02 KOLOA 1560 02 LIHUE 1579 02 LIHUE	1 22 1 1 22 1 3 22 0 3 22 0 2 21 5 2 21 5 2 21 5 2 21 5 2 21 5 2 21 5 2 21 5	1 : 159 24 159 24 2 159 41 4 159 28 3 159 29 1 159 23 1 159 30 1 159 23 9 159 22	160 8. 2150 36 240 640 737 100 375 207	7A 8A 7A 7A 64 T4 7A	c	XILAUEA SUG PLIN CO U S COAST GUAPO KEKAHA SUGAR CO. KEKAHA SUGAR CO.TO GROVE FAPA CO LTO GROVE FAPA CO LTO GROVE FAPA CO LTO GROVE FAPA CO LTO HILLEA SUG PLIN CO HAMAIJAN SUGAR PL ASSN LIMUE PLIN CO LTO LIMUE PLIN CO LTO	HONOKOHAU 480 A HONOKOHUA 493 A HONOLUA FLD 49 494 A	1122 01 1125 01 1148 01 1552 02 1882 04 1887 04 1914 04 1935 01 2208 03 2307 04	HANA HANA HAKAWAO LAHAINA LAHAINA	1 2 4 4 4 1 1 3	20 45 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 56	156 13 156 36 156 39 156 38 156 14	120 61 325 6930 870 135 125 6280 1100	11-	8A 11A TA NG HG 6A HG	c	MADRY MASCANA MANAINA AIRLINES KOALI RANCH MALEANALA NATL PARK PGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO MAUI PINEAPPLE CO MALEANALA RANCH CO STATE OIVISION OF PAPK S AMPAC PROPERTYS
MAXAMUÉ NA POINT 940:1 5 MAXAMUÉ LI 705 6 5 MANA 126 6 6 M + M 1001 1 707 107 107 107 107 107 107 107	1589 02 LINUE  1785 02 KOLOA  1864 03 WAINEA  1097 02 KOLOA  1.43 01 WAINEA  1529 01 KAWAINAU  1565 02 WAINEA  1869 03 WAINEA	21 5 3 21 5 3 22 0 2 21 5 3 22 0 1 22 0 3 22 0 2 22 0	2 159 2T 5 159 38 2 159 46 5 159 28 7 159 36 1 159 20 4 159 30 1 159 44 4 159 28	103 HII 52 8 140 11 9 300 3500 330 5148 1250 6 1110 650	84 TA 94 M1D 74	5	U S MEATHER BUREAU U S COAST GUARO OLOKELE SUGAR CO KEKAHA SUGAR CO LTO GROVE FAPH COMPANY U S GEO SURVEY LIHUE PLANTATION CO. U, S, GEO, SURVEY KEKAHA SUGAR CO LTD LIHUE PLATA CO LTO LIHUE PLATA CO LTO	KAILIILI 436 A	2552 04 2572 03 2630 01 2679 01 3433 04 3576 02 3910 03 4091 01	MAKAWAO LAHAINA	1 1 2 3 1	20 59 20 54 20 54 20 51 20 54 20 53 20 39 20 52 20 50 20 42	156 38 156 26 156 16 156 13 156 38 156 08 156 23	650 2000 48 2520 700 1585 1020 480 981	H1:	W1 HID HG TA WI 5A MG 8A	9 4 8	EOMARO CHANG PIONEER MILL CO LTD J U S WEATHEP BUPEAU E MAU! IPP CO LTO E HAU! IPP CO LTO PIONEER HILL CO LTO KAUPO RANCH HAWAIIAN COM + SUG CO E MAU! IRP CO LTO A. L. COPELL
PH MAINIMA 1115 PRINCEVILLE PANCH 1117 8 RUHW HDGE 104 8 PUHH 1013 AR RESERVOIR 6 1004 AR STABLE CAMP 1055-1 8 WANIAWA HOUNTAIN 990 AR WALMI WER 1094	993 01 LIHUE 1155 01 HANALEI 1165 01 HANALEI 1205 03 WAIMEA 1217 02 LIHUE 1574 02 LIHUE 1594 02 LIHUE 1994 02 KOLOA 1958 02 LIHUE	2 22 0 11 22 1 11 22 1 13 22 0 2 21 5 2 21 5 2 22 0 2 21 5 2 21 5 2 22 0 2 21 5	2 159 34 3 159 29 1 159 42 8 159 24 7 159 27 4 159 27 6 159 34 8 159 31 1 159 27	101 295 1660 329 420 740 215 2100 565 780	6A TA BA BA TA HO 6A BA	City Mat	HT BPYOE SUG CO LTO  HT BPYOE SUG CO LTO  HT BPYOE SUG CO LTO  GROVE FARM CO LTO  GROVE FARM CO LTO  GROVE FARM CO LTO  LIHUE PLANTATION CO.  HT BPYOE SUG CO LTO  LIHUE PLANT CO LTO  LIHUE PLANT CO LTO  LIHUE PLANT CO LTO	KULA HEIGHTS 323.2 KULA SANATORIUH 267 LAHAINA 361 LAUNIUPOKO INTAKE 3T6 A LAUNIUPOKO VILLAGE 372A LUPI UPPER 442	500 02 511 04	LAHAINA HAKAWAO HAKAWAO LAHAINA LAHAINA HAKAWAO	1 2 2 4 4 4 4 1	20 47 20 39 20 54 20 47 20 42 20 53 20 51 20 51 20 53 20 57	156 35 156 19 156 22 156 41 156 37 156 39 156 15	90 260 5788 2520 3004 45 1280 220 1240 715	7A 7A	7A 7A 6A 7A 7A VAR 7A MO 7A	2 4 4	MAMAIIAN COM - SUG CO KIPAMUU CATILE COMPAN SMAUI PINCAPPLE CO KENNETH WILLEY KULA SANATOPIUM PIONEEP MILL CO LTO PIONEEP MILL CO LTO FIONEEP HILL CO LTO E MAUI IRR CO LTO PIONEEP MILL CO LTO PIONEER MILL CO LTO
MATARA 943  MATULA KAT 1/65  MATULA KAT 1/65  MATULA RAT 1/65  MATULA 847  MAT	1253 03 WAIMEA 467 02 LIHUE 467 03 WAIMEA 499 02 KOLOA 111 03 EWA 1211 02 MONOLULU	3 21 5 2 22 0 3 21 5 2 21 5	9 159 43 2 159 21 7 159 41 159 31	10 50 20 210	8A TA 8A 6A		FERANA SUGAR CO LTO LINUE PLANTATION MAIMEA SUG HILL CO HC BPYDE SUG CO LTO WAIAHOLE WIR CO LTO BOAPO OF WIR SUPPLY OEL MONTE COPPORATION	OLINDA 332 OLOWALU 2906 OLOWALU GULCH 377 PAAKEA 350 PAIA 406 PANILEIHULU 259.2 PAUWELA 490	6645 04 7040 01 7059 04 7066 04 1194 01 7566 01 1674 02	HAKAWAO LAHAINA LAHAINA HANA WAILUKU HANA HAKAWAO	4 1 4 1 1 2 1	20 59 21 02 20 48 20 49 20 51 20 49 20 55 20 41 20 55 20 49	156 36 156 17 156 38 156 36 156 07 156 23 156 08 156 19	1290 340 4127 7 800 1260 170 3570 485 167		VAR VAR 7P MG 64 6A WI TA 6A	¢	S MAUI DINEAPPLE CO HAUI PINEAPPLE COMPANY MAUI CO WATER DEPP PIONEER MILL CO. PIONEER MILL CO. PIONEER MILL CO LTO E MAUI IRP CO LTO HAMAIIAN COM + SUG CO KAUPO PANCH CO. HASEPOT PINEAPPLE CO. WALLUNG SUGAR CO.
CAMP 84 9.7  CHURCH COLLEGE LAIE  DOTHUL ISLAMD 840-1  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  U.=JETT HIGHLOS 780-8  HOPJUOA 725-2  A U.=JETT HIGHLOS 780-8  HOPJUOA 725-2  A U.=JETT HIGHLOS 780-8  A	300 03 EWA 340 01 KOOLAUPOKO 350 01 KOOLAUPOKO 456 02 HONOLULU 5507 03 EWA 1964 02 HONOLULU 3740 05 WATALUA 540 07 EWA 918 03 EWA 918 04 HONOLULU	3 21 1	5 157 4T 1 157 50 1 158 02 3 157 54 3 158 00 4 158 06	680 20 13 565 42 170 1214 2220	WI VAR	94	OEL MONTE CORPORATION BIOLOGICAL SCIENCE COPT U OF H MAPINE LAB J. L. BANNING EMA PLANTATION CO BOARD OF WATER SUPPLY MAJALUA AGR CO LTO H. V. VON MOLT U S COAST + GEODETIC U S WEATHER BUPEAU	PUU KUKUI MAKAI 472 PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2 IWIN GATES 261.3	8336 01 8444 04 8543 03 8553 01 8688 03 8742 03 8744 01 8750 04	HANA LAHAINA WA]LUKU HANA WA]LUKU MAKAWAO MAKAWAO LAHAINA	1 4 4	20 50 20 55 20 53 20 46 20 54 20 46 20 48 20 48	156 03 156 25 156 23 156 15 156 35	6150 2980 2500 60 2160 85 1310 5230		VAR NO HO TA SA VAR HO 7A		STAIE OIV OF FORESTRY E MAU! IPP CO LTO PIONEEP MILL CO LTO HAWAIIAN CON + SUG CO SEAST MAU! IRPIGATION CO HAWAIIAN CON + SUG CO FANNOULU RANCH HALEARALA PANCH CO PIONEEP MILL CO LIO
#MONOLULU NUBSTA 70A 1 H B PA FEP STA 707 2 FAALAFEL 724-6 2 FAHAMA ##3 A 2 KAHJKU 912 KALUA FIRE 51A 791-3 2 KALUA FIRE 51A 797 2 FAMEHAME 724-7 3	91% 02 HONOLULU 146 02 HONOLULU 146 02 HONOLULU 462 01 KOOLAULOA 5771 01 KOOLAULOA 583 01 KOOLAULOA 583 01 KOOLAULOA 583 01 KOOLAULOA 583 01 KOOLAULOA 583 01 KOOLAUPORO	2 21 20 2 21 10 2 21 13 2 21 13 1 21 21 21 1 21 21 21 2 21 2 2 21 2	9 157 52 8 157 50 B 15T 43 1 157 54 1 157 57 4 157 45 3 157 50 9 157 41	7 HII 12 MII 50 10 800 25 8 10 910 1380	BA W1 BA BA MID	2000	U S WEATHER BUPEAU ESSA-WEATHER BUPEAU H S P A EXP STATION MPS, HILLIE ZAPATA WAIAHOLE MTR CO LTO KAHUKU PLTN CO KAHUKU PLTN CO KAHUKU FIRE STATION BOARO OF WTR SUPPLY HAWAII NATIONAL GUAPO STATE HOSPITAL	WAMIKULI 364 WAIEHU CAMP 484 WAIEHU CAMP 484 WAIKAHOI 649 WAIKAHOI 649 WAIKAHOI 649 WAIKAU 390 WAILUA IKI 348 WAILUA 392	8955 0- 9275 03 9315 0- 9332 01 9335 01 9376 03	MAKAWAO WAILUKU HANA WAILUKU	4 3 4 1 1 3 1 3	20 39 20 54 20 55 20 57 20 52 20 49 20 52 20 48 2^ 54 20 38	156 40 156 31 156 32 156 12 156 14 156 31 156 09 156 30	580 320 300 1200 4320 470 2630 201	80	8A 8A 6A WAR 6A VAR 6A CA 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A CA 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VAR 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A VA 6A C 6A C		ULUPALARUA RCH CO LTO PIONEER MILL CO LTO WAILURU SUGAR CO WAILURU SUGAR CO WAILURU SUGAR CO FAMALI RRE CO LTO WAILURU SUGAR CO EAST MAUL IRPICATION C ST. ANTHONYS BOYS SCH MALERARUA RANCH CO
KANFONE PANCH 838 A 3 KAPARA WAKAI 079-1 3 KAFAIAWA 773 A 3 KAWAIHAPAI 841 A 3 KAWAIHAPAI 841 A 3 KAWAIHAPAI 841 A 3 KENOC CAMP 8 855 A 4 KOOLAU (AW 83 3 LUALUALIJ 855 I/MNEL A 5	12% OF KOOLAUPOKO 220 OF KOOLAUPOKO 220 OF KOOLAUPOKO 220 OF KOOLAUPOKO 230 OF KOOLAUPOKO 230 OF KOOLAUPOKO 318 OF WATALUA 250 OF WATALUA 250 OF WATANAE 250	1 21 21 2 21 30 2 21 30 4 21 30 4 21 31 5 21 30 4 21 20	3 157 47 5 15T 54 1 167 52 1 167 52 1 167 11 4 157 59 0 158 00 3 158 05 0 157 58 1 18 08	365 10 614 20 1180 1050 725 1160 113: 7:	BA TA WI TA BA	K K K	KANEDHE PANCH CO GEORGE H. SWIFT KAMEHAHEMA SCHOOLS WAIJALUA ACR CO LTD WAIJALUA ACR CO LTD WAIJALUA ACR CO LTD WAIJALUA ACR CO LTD C+ FOFFICER MEOG USN AHHUNITION OEP U.S. NAVY HINDR LUH	ISLANO OF HAWA!! AHUA UH1 75 AWIN1 182-1 EAST HONOKANE 183-2 HAINA 214 HAKALAU 142	0040 0 0190 01 0450 01 0840 01 0905 0	N KONA N KOHALA S KOHALA HAHAKUA S HILO	5 1 1 2 3 1 2 2	19 38 20 10 20 07 20 06 19 54 19 24 19 56 19 46 19 26	155 47 155 43 155 43 155 26 155 08 155 17 155 24	5220 187 424 460 105 3648 5770 9220 3971	7A.	HO WI HO 7A 7A HO HO HO 8A	, v	GREFAVELL PANCH ROBALA DITCH CO LTD KOHALA DITCH CO LTD KOHALA DITCH CO LTO HONOVAE SUGAP CO HEBEEKEN SUGAP CO. HAWAII NAI PARK VUCATAL PANCH CO STATE DIV. OF PARK HAVAII NAT PARK
HARAHA KALL 796 A 5 HARAHA VALLEY RO =1 A 5 HARAHUU POINI 726 5 HANDA 712 6 HANDA TINNEL 2 716 6 HAUNAWILI 787 6 HAUNAWILI 787 6 HOLMAT YOUR 6	766 04 WATANAE 781 04 WATANAE 800 02 HONOLULU 122 02 HONOLULU 130 02 HONOLULU 222 01 KOOLAUPOLO 399 02 HONOLULU 553 04 WATANAE	2 21 21	158 13	40 25 160 538 220 650 410 20 4025 1048 410	7A TA BA BA BA MID 9A MID VAR	c c	LUNALLIO MOME CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUAPO MPS.JOHN H.GEAUHONT ROARO OF WIP SUPPLY EXP. STA. N.S.P.A. JOHN A ROXBUPGH FEOERAL AVIATION ANM. BOAPO OF WIP SUPPLY BOARD OF WIP SUPPLY BOARD OF WIP SUPPLY	HAWI 168 HILO WB AIRPORT 87 HOLUALOA TO HOLUALOA BEACH 68 HONAUNAU 2T HONOH NA 137 HONOKANE 101.1 HONOH HAUKA 138 HONUAULA TI HUALALAI TZ	1339 01 1492 0 1557 0 1562 0 1665 0	N KONA N KONA S KONA N HILO N KOHALA S HILO N KONA N KONA	1 2 4 4 2 1 2 1 2 4	20 14 19 43 19 38 19 37 19 27 19 56 20 09 19 51	155 50 155 55 155 59 155 53	27 3220 14 1089 300 800 1100 6250 8190 1960	MID	7 A H10 P MG 7 A 7 · 7 · 7 · 7 · 7 · 8 · 8 ·	C 410K	KOHALA SUGAP CO  U.S. WEATHER BUREAU  STATE OIV OF FORESTPY VARIOUS PANCH HANDS  FORESTPY VARIOUS PANCH COMPANY FORMLA DITCH CO. LTO PEPEERFO GUSAR CO, STATE DIV OF FORESTPY STATE DIV OF FORESTPY STATE OIV OF FORESTPY
PACULA 87  **ALUT 718  7  *PALVA VALUT 718  7  *PALVA VALUT 718  7  *PALVA VALUT 718  7  *PALVA VALUT 718  7  *PALVA VALUT 718  *PALVA VAL	150 05 WAIALUA 664 02 MONOLULU 8101 02 MONOLULU 933 03 EWA 126 = 2 MONOLULU 172 05 WANILUA 310 II FOOLAULII 610 01 MONOLULU 610 01 MONOLULU 710, 02 MONOLULU	9 21 33 2 21 20 2 21 21 3 21 21 2 21 11 5 21 20 1 21 31	158 02 0 157 46 1 157 48 1 157 48 7 157 58 7 157 43 5 158 01 157 54 0 157 51 2 157 47 157 47 157 49	1060 71 995 1640 240 700 81 40 360 488 2000	7A M1D H10 7A 8A 8A 7A	0 0 0	MAIALUA AGR CO LTD BOAPO OF WTR SUPPLY BOAPO OF WTR SUPPLY JAMES MUMERO MRS ALEPED FRANCO, JR. PINEAPPLE PESEARCH INST KAHUKU PLIN CO NAT MEM CEMETERY REV © CULLINAN BOARD OF MAIER SUPPLY	KAALA 1K1 12 KAAWALOA 29 KAHIAWAI 3.4 KAINALIU 73.2 KALAPANA NO 1 67.8 KAHAOA NO 2 5 KAHUELA 192.2 KAHUELA 192.2	2249 03 2327 04 2512 03 2751 04 2894 02	KAU N KONA KAU N KONA S HILO KAU S KOMALA S KOMALA	3 4 3 4 2 3 1 5	19 08 19 30 19 08 19 32 19 20 19 02 20 01 20 00 19 17	155 34 155 55 155 46 155 56 155 02 155 40 155 40	1340 1330 3700 1500 10 1375 2670 2665 2140 290	7A 6A 8A	TA SA VAR WI 6A 6A VAR		HUTCHINSON SUGAR CO CAPTAIN COOF COFFEE CO. RUSSELL P. SHITH YOAN EXPERIMENT STA HAWAII VOLCANDES NAT PHAMAIIAN RANCH CO PARKER RANCH HAMAIIAN AIPLINES HAMAIIAN RANCH CO. BORRO OF WATER SUPPLY BORRO OF WATER SUPPLY
NEY JF HAWAII 713 N 8 MAHIJAWA DAM 965 A 8 dAJAHNIE 637 N 9 WAJALAL FANALA 715 9 WAJALA FANALA 728 N 9 WAJANAE 708 N 9 WAJANAE MAUKA 631 N 2	71% 02 HONOLULU 81% 02 HONOLULU 9% % WARELAWA 96% 1 KOOLAUPIKO 18% 02 HONOLULU 195 % WALAUA 231 04 WALANAF 238 04 WALANAF 240 03 HWA 340 03 KOOLAUPOKO	2 21 10 9 21 30 1 21 20 2 21 1 9 21 31 4 21 2	157 49 158 03 157 53 1 157 47 5 158 07 7 1 158 11	1325 79 854 745 40 32 7 20 1575 800	SA UI UI	c	P. F. WHITE  OEPT OF OFOSCIENCE  WAIALUA AGR CO LTO  SPENCEP TINKEP  WAIALUA AGP CO LTD  CAPITAL INVEST CO  WAIAHUA WIT CO  WAIAHUE WIT CO LTO  WAIAHUE WIT CO LTO	KAUMANA 88.1 KAWAINUI LOWER 193 KEAAU 92 KEAIWA CAMP 22.1 KEALAKEFUA 26.2 KEANAKOLU CAMP 124.2 KEMNA 1812.2	3510 02 3770 01 3812 02 3925 03 3911 04 4098 02	S HILO HAHAKUA PUNA KAU S KONA HAHAKUA N KOHALA	1 2 3 	19 41 20 05 19 38 19 14 19 30 19 55 20 07	155 02 155 29 155 55 155 21	1123 1080 280 1700 1450 5280 3840	8A 8A	6A WI 8A 8A WI	ĸ	SHIGEO HASUYA HONOKAN SUGAR CO PUNN SUGAP CO HAWAIIAN ACPI, COMPANY MISS AMY GREENWELL STATE DIV. OF FORESTRY KOMALA OITCH CO LTD STATE DIV OF FORESTRY
MAIKIKI 117.2 MA	397 02 HONOLULU 495 02 HONOLULU 500 22 HONOLUL 521 1 KOOLAUPOKO 593 54 MAIALUA T3A 3 EWA 98 2 HONOLULU	2 21 11 1 21 21 9 21 31 3 21 21 2 21 11	8 156 04 3 156 01 5 157 47	760 10 8 170 180 60 420 59	8A 7A 8A MID	С С	MAIAHOLE WIR CO LTO HONOLULU 200 BORPO OF WIR SUPPLY WAILUPE VALLEY SCHOOL (1 01V WIR + LAND OEV WAIALUA AGR CO LTO OAMU SUGAR CO BOARD OF WIR SUPPLY	KIPA 89.2  KOHALA 119.1  KOHALA HAULILI 176  KOHALA MISSION 175.1  KOLAME COWER 196  KOMA AIRPOPT 68.3  KOMA VILLAGE 93.8  KULAIAU 222  KURUJHAGE HIC 199	4670 01 467 01 468 01 468 01 476 0 476 0 481 01	S HILO N KOMALA N KOMALA N KOMALA HAMAKUA N KONA N KONA HAMAKUA HAMAKUA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	19 44 20 14 20 13 20 14 20 05 19 39 19 52 20 02 20 07 20 08	155 47 155 48 155 38 156 01 155 55 155 21 155 35	309 96 537 72 17 15 840 980	7A 8A	W1 74 WAA 6A 6A		MAUNA KEA SUGAP CO.  KOHALA SUGAP CO K. LYMAN BOND HONNOKA SUGAP CO MAMAIIAN LIREINES KOMA VILLAGE RESOPT HTL HONNOKAA SUGAP CO HONNOKAA SUGAP CO
RANAL MA CA NAZA A A MA MA CA NAZA A A MA CA CA CA SA MA MA CA CA CA CA CA CA CA CA CA CA CA CA CA	896-31 HOLOKAI	1 21 11 11 21 01 11	156 52 5 157 01 5 157 01 2 157 12 9 157 02 6 156 48 8 157 13 9 157 06	30 60 12 70 560 878 20 1075 450 T00	6A MK. 7A 8A 9A 8A 6A	<b>c k k</b>	FALAUPPA STITLMENT  J. CAPTER MOLDIAI PANCH LTD MOLDIAI PANCH LTD MOLDIAI PANCH LTD MOLDIAI PANCH LTD MOLDIAI PANCH LTD MOLDIAI PANCH LTD MOLDIAI PANCH LTD I SP A LDD A AIPLINES PUUDHORU BANCH MOLDIAI PANCH MOLDIAI PANCH	KULANI CAMP 79  KULANI SCHOOL SITE T8 A LALAMILO FLO OFF 191.1  LANIHAU 68.2  LAVA IREE PARK 66.1  HANUFA 2  HAUNA KEA BEACH 98  HAUNA LOA SLOPE 085  HIOUE HOUVALOA 68.1	5018 05 5021 02 5260 01 5330 04 5460 02 6134 03 6180 05 6198 05 6268 04	S HILO N HILO S HILO S KOMALA N KONA PUNA KAU	2 1 4 2 3 1 5 4	19 33 19 35 19 35 20 01 19 40 19 29 19 07 20 01 19 32 19 37	155 18 155 27 155 20 155 41	30 5170 8300 5135 2615 153 650 176 103 11146 475 1380		WI WI BA BA BA	200	HONDKAR SUGAR CO.  U.S. WEATHEP BUREAU ST. OPET OF SOCIAL SER STATE OPET OF SOCIAL SER STATE OPET OF LAN RES STATE OIL, OF PARKS STATE DIVISION OF PARK MANNA FER BEACH HOTEL U.S. OR ARCHEST STATE DIVISION OF PARK MANNA FER BEACH HOTEL U.S. OR A EMPTPHENERAL KAHJA RANCH NT. STA KAHJA RANCH NT. STA

CTSTION		NOIS	DISTRICT	AGE ‡	TITUDE	LONGITUDE		ATION	TD	RVA VE A ABLE		ORCEDVED	STATION	X NO.	SION	OISTRICT	AGE 1	TITUDE	ONGITUDE	ATION		SERV TIME TAB	LES	OBSERVER
STATION	INDEX	DIVISIO	DISTRICT	DRAIN	LATI	TONG		ELEV	TEMP	EVAP.	SPECIAL of the sorth:	OBSERVER	SIATION	DNDEX	DIVISIO	DISTRICT	DRAIN	LATI	LONG	ELEV	TEMP.	PRECIP.	EVAP.	OBSERVER
MOUNTAIN VIEW 91 NAMEHUL 14 NAMENGOOD 28 NAMENGOOD 38-6 NULLI 179 DOWALA 223 DOWALA 223 DOWALD LAND EST 91-5 RACHMUZ 21 PARULU 221 PARULU 221 PARULU 221 RACHMUZ 21 R	A 6588 A 6697 6731 7166 7131 7166 7204 7312 7421 7421 7457 A 7643 7711 7721 8000 A 8051 A 80651	022 033 044 022 011 022 021 033 022 022 022 022	RUNA	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19 33 19 04 19 26 19 19 20 14 20 01 19 34 20 05 20 03 19 12 19 30 19 22 19 47 19 41 19 44 19 44	155 155 155 155 155 155 155 155 155 155	77 155.5.68 155.5.7 7.33 156.6 157.7 188.6 155.7 7.188.6 155.7 7.188.6 155.0 156.8 155.0 156.8 155.0 156.8 155.0 156.8 15		7A 7A	M687A6477A7 76699777MA64		HAVAIIAN BANCH CO PUNA SUGAP CD HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO HUTCHINSON SUGAP CO STATE DIV OF FORESTRY STATE DIVISION OF RAPK, ETWIN H. BARR	RUU LAAU 102+1 RUU LEHUA 73 PUU MALI 113 PUUWALI 113 PUUWCUMAUNAU 167 RUU 00 82 PUU MANNAA 94+1 SADOLE ROAD 1 84 SOUTH ROINT CORRAL 3 SPINT TRACKING STA UMIKOA 118	A 848 A 851 A 851 A 855 A 856 A 86 871 881 901	52 05 50 04 15 01 50 02 55 05 55 05 77 03 77 03 80 01 25 02	HAMAKUA HAMAKUA N KONA HAMAKUA N KONA SHANA N KOHALA S HILO KAU KAU KAU KAU N KOHALA S HILO KAU KAU N KOHALA S HILO KAU N KOHALA	5 4 1 1 1 2 5 2 3 3 3	19 50 19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57 19 59 20 15 19 40	155 24 155 36 155 49 155 26 155 56 155 51 155 12 155 41 155 41 155 41 155 44 155 53 155 54	7440 4880 6960 1890 6340 2520 2340 400 305 3420 61 1050	8.4	MO MO MO 6A A 7A WM WI	<	EUFATAU PANCH CO STATE DIV OF FISH-GAM GREENWELL RANCH COMEAN DITCH CO LID UN MA SHIPMAN, LTD DILLINGAME RANCH INC. BUILD OF STATE CORR FEDERAL ELECTRIC CORR FUNTALIAN PANCH INC. UN SCHOOL STATE CORR FUNTALIAN PANCH COR

TORAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN S-NORTH-CENTRAL MOLOKAI: 1-(NO BYTRA-ISLAND DIVISIONS) LANAI: 1-(NO BYTRA-ISLAND DIVISIONS) LANAI: 1-NORTHERN 3-CENTERN 1-SOUTHERN 3-CENTERN 1-SOUTHERN 3-CENTERN 1-SOUTHERN 3-CENTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN 1-SOUTHERN 1-WESTERN

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii say he obtained by artiting to Environmental Science Services Administration Regional Climatologiet, P. D. Box 3650, Hosolulu, Hawaii, or to any Weather Bureau office near you. Additional prejitation data are contained in "HDURIY PRECEITATION DATA HAWAII".

DIMENSIONAL UNITS: Tolless otherwise indicated, dimensional units used in this builbtin are Temperature in F, precipitation and evaporation in Inches, and wild movement in nine. In "Supplemental Data" table directions entered in figures are tens of degrees Resultant aind is the vector sum of aind directions and peeds divided by the number of observations

OBSERVATION TIME Data in the "Monthly Extremes", "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station index. The Station Index shows observation time in loca

EVAPORATION is seasured in the etandard Weather Bureau type pan of 4-foot disaster unless otheraise shown by footnote following the "Evaporation and Wind" table "Max and Wind" table and Wind" table "for any supersture of sater in pan as recorded during 24-hours ending at time of observations.

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES - Basain state key numbers are included following station names in the several tables DELAYED DATA AND CORRECTIONS will be carried only in the June and December lasuss of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual Issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
- No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry.
- + And also on an earlier date or dates
- ++ Bighest observed one minute windsgeed . This station is not equipped with an instrument to measure fastest mile data
- \* Amount included in following measurement, time distribution unknown
- The istter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station Indea", indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulleting for dates of seasurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- B Adjusted to a full month
- J "Supplemental Data" table
- M One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily
- T Tracs, an amount too small to measure
- V Includes total for prsvioue m

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING:

- AR Dbssrvation mads after rain
- C in Special Column of Station Index indicates Recording Hain Gage Station. Hearly precipitation values are procussed for special purposes, and are published later in the "Bourty Precipitation Data" builetin. If daily amounts are published later including the special Data" builetin they are from a separate mon-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" builetin.
- MO Gage read once montbly, usually on the last day
- OC Gage readings at periods varying from a few weeks to eeveral months
- 8 Storage Procipitation Station. Precipitation measurements, sade at irregular intervals, are published in the December issue, or as delayed data in the June issue of this publication.
- SS Observation time is near sunset
- VAR Observation time is variable
- WI Gage read weekly or irregularly only
- WM Gage read meekly and last day of month
- # Thermometere are generally exposed in a shelter located a few fewt above sod-covered ground; however, this reference indicates that the thermometere are exposed in a shelter located on the roof of a building.

Statione appearing in the tables with no data were either missing or received too lats to be included in this issue,

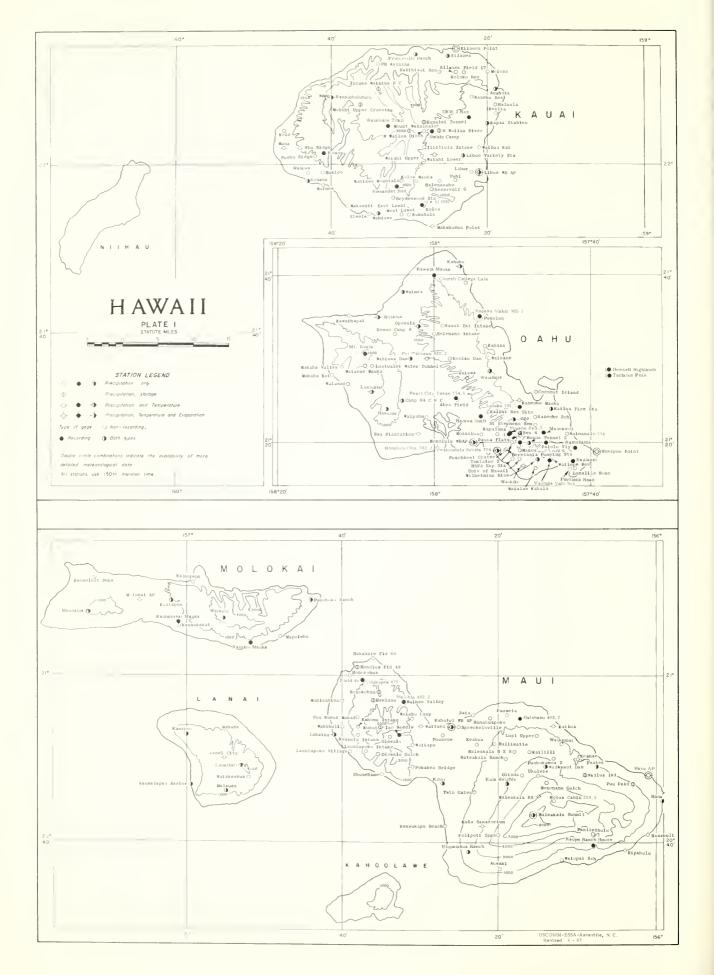
General weather conditions in the U. S. for each month are described in the publications MDMTHLY MEATHER REVIEW. CLIMATDLOGICAL DATA MATIONAL SUMMARY, and STORM DATA, all of shich may be obtained from the Superinteedence

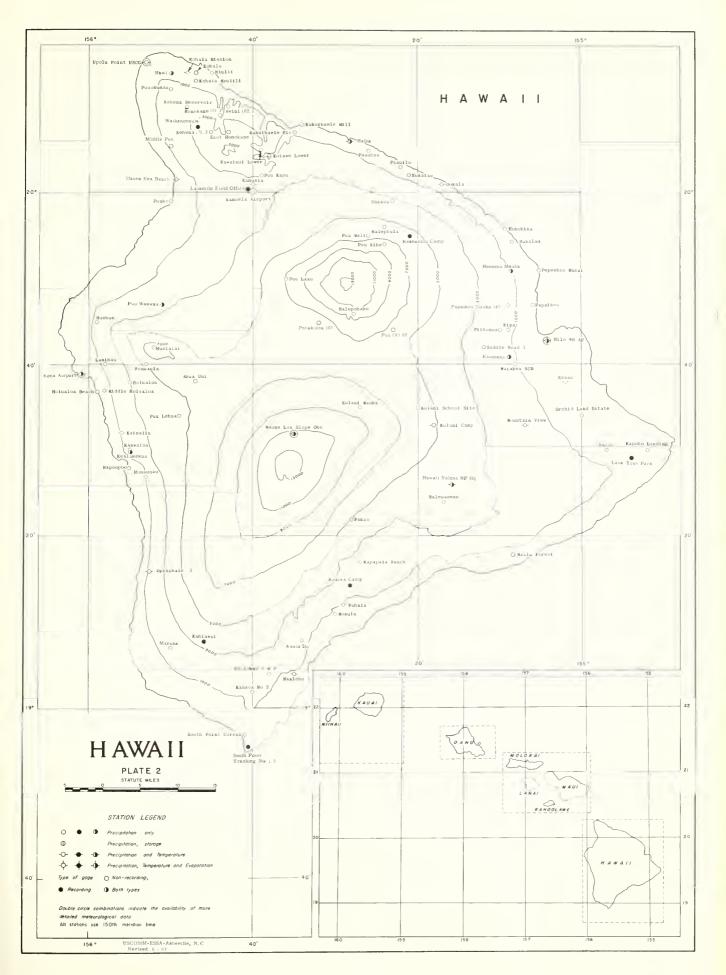
and SIGNA DAIA, all of spice may be obtained from the Superimensors to obcuments, coverament Printing billies, manington, D. C. Jovid.

Information concerning the history of changes in locations, elevations, seposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Sureau stations may be found in the latest annual issue of Local Climatological Data, price 165 cents. These publications may be obtained from the Superimensor of Documents the address shown above.

Subscription Price 20 cents per copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders about the made payable to the Superimensor of Superimensor of Causetts. Remittance and correspondence regarding subscriptions should be sent to the Superimendent of Documents, Covernment Printing Dirice, Namilation, D. C. 20042.

USCOMM-ESSA-ASHEVILLE-12/2/68-890









CLIMATOLOGICAL DATA

U.S. DEPARTMENT OF COMMERCE C R SMITH, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION ENVIRONMENTAL DATA SERVICE

JAN 16 JOSS

HAWAII

SEPTEMBER 1968

Volume 64 No. 9

HAWA11 SEPTEMBER 1968

# CLIMATOLOGICAL DATA

		,											1					ر ص	//	SEP	TEME	ER :	196	8
					Ter	npera	ature		-		1			1		Sil	TECY	Preci	Itation			1		
Station					lad					γs	Ma	o. of 1	Days	-			Day		Snov	w. Sleet		-	o. of l	
		Average	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	<b>Degree Days</b>	SU" or Above	$\dashv$	Т	$\dashv$	Total	Departure From Norma	Greatest D	Date	Total	Max. Depth on Ground	Date	5	.50 or More	1.00 or More
* * * 1SLANO OF KAUAI																								
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	Δ Δ	76.2	73.8	65.8		80	17+	49 67	30÷		0	0	0	0	2.37 2.38 3.88 5.39 8.64	.24	.62 .86 1.36	10	.00	0		6	2 1 3	1
KOLOA 936 LIHUE WB AP 1020.1 MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R	83.9	73.4	78.7 79.7	.6 1.8		13+	65 66	30 25		0 15	0 0	00	0 0	3.15 3.17 1.34 9.95 4.49	- 1.23 1.09 .55	.66	27	.0	0000		8 2		
PUEHU RIOGE 1040 WAHLAWA 930 WALAHI LOWER 1054 WAIMEA 947	Δ	83.8	66.1	75.0		89	8	61	30		0	0	0	0	2.41 .88 6.43 .46	83	1.10 .50	27	.0	0		6 20 3	2 1 3 0	0 0
ISLANO				76.0											3.92				.0					
* * * * 1SLANO OF DAHU																								
HONOLULU OBSERV 702.2 HONOLULU WBFC 703 KAHUKU 912 KANEUHE KANEUHE MAUKA 781 KOOLAU OAM 833	R A	89.6 87.0 M 84.7	74.3 74.5M 73.0	82.0 80.8M 78.9	2.8 2.6 2.1	92 90 86	4+		30 30+ 1		19	000	000	000	1.17 1.30 4.71 6.29 5.54	.31 2.86 2.48 70	2.39	21 20 29 1	.0	0		2 3 13 18	3	0
LUALUALE1 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718	Δ	84.5 85.2	74.7 67.1	79.6 76.2	3.0	93 90 88		72	30 7+ 29		0	00 0	000	000	4.66 .35 5.55 5.93 8.94	- 2.98 3.49		5 7	.0 .0 .0	0		13	0	
PR1 WAMIAWA 820°2 PUNALUU 884 WAMIAWA 0AM 863 WAIAHOLE 837 WAIALUA 847	A A A	88.0M	68.0M	78.0M	1.8		3 20		29 30÷		10	0	0	0	1.72 5.66 1.88 8.43 1.80	- 1.36 1.01		7 3	.0	0		4	1	0
WA1KIK1 717.2 WA1PAHU 750	Δ	89.3	74.2	81.8		93	22	70	30+		12	0	0	0	1.61	1.18	1.5	1 21	.0			1	20.00	
ISLANO				79.4											3.99	1.10	• "		.0				~	
* * * 1\$LANO OF MOLOKAI																								
KUALAPUU 534 MAPULEHU 542 MAUNALOA 511 MOLOKA1 AP 524	Δ	86.1	73.4	79.8		89	2	70	7+		0	0	0	0	1.27 2.68 1.66 1.07	.49 .08 .55	.56	26 5 27 2 8 7 26	.0	0		9 4 3	1	0
15LAN0				79.8											1.67				.0					
1SLAND OF LANA1												И	П											
LANAI CITY 672 15LANO	Δ	79.9	66.9	73.4	1.9	83	2	64	6+		0	0	0	0	8.85	6.58	4.26	5 21	.0			10	5	2
* * * ISLANO OF MAUI												1												
HALEAKALA 8 E S 434 HALEAKALA RS 338 HANA AIRPORT 355 HONOKOHUA 493 KAANAPALI AIRPORT	Δ	66.1 85.9 88.2	48.0 70.3 71.6	57.1 78.1 79.9		87	17+ 20+	67	29		000	000	000	0 0	5.47 4.53 12.05 1.55	13	2.45	3 7	.0	0		10 10 15	9	5
KAHULU1 W8 AP 398 KAILUA 446 KEANAE 346	R A	90.4 81.9M	69.3 69.2M	79.9 75.6M	1.5	95 88	18	62 65	5 30		20	00	00	0	7.83 10.90 11.39	. 33	1.38		.0	0		1 14 20		0 3
K1PAHULU 258 KULA SANATORIUM 267		74.8	59.1	67.0	. 5		17+		28		0	0	0	0	4.92	2.95	1.61	1 19	.0	0		8	2	2
LAHA1NA 361 PA1A 406 WA1LUKU 392		89.0	72.2	80.6	2.9	92	2		30		3	0	0	0	1.01 1.02	23 27 .42	. 32	2 26	.0	0		5 4	0 0	0
15 L AN 0				74.9											4.76				. 0					
* * * 1SLANO DF HAWA11																								
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO W8 AIRPORT 87 HUEHUE 93.1	R	85.7 71.8 84.5	66.9 56.5 69.1	76.3 64.2 76.8	1.8 .9 1.3	75	20+ 14 16	51	29 25 30+		0 0	000	000	0000	1.16 4.57 8.53 4.57	- 1.13 52 .03	1.08	8	.0	0		15 19	ON	0 1 3
KAINALIU 73.2	Δ	81.3	66.3	73.8		8.5	1		20		0	0	0	0	6.07	- 1.53			.0	0		11	3	
KAMUELA AIRPORT 191		78.1	56.1	67.1		82	3	51	29+		0	0	0	0	1.16		. 52	4	. 0	1		3	1	0

### CLIMATOLOGICAL DATA

HAWAII SEPTEMBER 1968 Continued Temperature Precipitation No. of Days Snow, Sleet No. of Days Departure From Normal Departure From Normal Days. Day Station Max. Min. Max. Depth on Ground .10 or More .50 or More Average Greatest Highest Above 32° or Below [otal Date Date Total Date Date 1.00 KEAAU 92 KEALAKEKUA 26.2 KONA AIRPORT 68.3 KUKUIHAELE HIC 199 KULANI CAMP 79 66.8 66.2 67.3M 76.5 73.8 77.1 88 17+ 83 28+ 89 19 65 65 62 000 000 000 000 1.6 15.73 8.32 6.68 22 00000 30+ 18 86.8M .86 1.58 6.85 .25 5 .32 1 1.72 30 0 0 2 5 1.21 0 67.98 49.2M 58.61 72 3 46 204 0 0 0 MAUNA KEA BEACH 98 PAHALA 21 POHAKULOA 107 PUAKO 95.1 PUU WAAWAA 94.1 00000 00000 74.1 98 15 87 15 72 29÷ 63 25÷ .81 2.59 81.3 3 00 00 7 2 .45 2 .81 12 .06 3.99 .88 5.83 . 24 0 3.50 UMIKDA 118 WAIAKEA SCD 88.2 .0 1.40 .76 2.60 3 20 0 4 ISLANO 72.7 4.98 . 0

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE, 98° ON THE 15TH AT MAUNA KEA 8EACH 98, HAWAII

LOWEST TEMPERATURE, 32° ON THE 17TH AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 21.84 INCHES AT MOUNT WAIALEALE 1047, KAUAI

LEAST TOTAL PRECIPITATION: .00 AT TWIN GATES 261.3, MAUI

GREATEST ONE-DAY PRECIPITATION: 4.31 INCHES ON THE 1ST AT PAHOA 65, HAWAII

GREATEST REPORTED TOTAL SNOWFALL:

GREATEST REPORTED DEPTH OF SNOW ON GROUND:

### HAWAII - SEPTEMBER 1968

## SPECIAL WEATHER SUMMARY

The month was marked by continued warm weather and by a return of rainfall to many of the areas previously affected by persistent dry spells.

Locally heavy but scattered showers and thundershowers were reported from every island of the State during the month, mainly in association with interruptions in the trade winds and with weak low pressure systems at the surface and The most intense rains appear to have occurred on the 9th in eastern and northern Kauai. where EKW #3 Reservoir had nearly 3-1/2 inches between 3:55 a.m. and 4:55 a.m. and Kilauea, approximately 5 miles to the northnorthwest, about 3 inches of rain from 3:15 a.m. to 4:20 a.m.

In many parts of the State, however, rainfall remained below the September mean. The entire Hamakua Coast of Hawaii Island, and isolated gages in southern Kauai, eastern Oahu, and Maui's central valley received less than half their average for that month. Here and there, as an illustration of the sporadic nature of the showers, the catch over gages only a mile or so apart ranged from more than three times to less than one-half the September mean.

Although Honolulu Airport had only 1 thunderstorm day during the month, Wheeler Air Force Base had 6 -- owing apparently to the greater intensity of daytime heating in central Oahu, where the latter is located.

On the morning of September 2, a light blanket of snow deposited on the summit of Mauna Kea (elevation 13,796 feet) by a thunderstorm the previous day stretched downward 1,000 feet along its southeast flank.

Perhaps the most interesting aspect of September's weather was the continuation of above normal maximum temperatures throughout much of the State, a situation which gave rise to numerous queries and complaints about the unseasonableness of the weather. Oddly enough, stations at high elevations had abnormally low average maximum temperatures. For example, the mean monthly maximum of 53.4° recorded at Mauna Loa Observatory (elevation 11,150 feet) was 3.6° below the September normal and the lowest for that month since the Observatory opened in 1957. Haleakala Summit, elevation 10,025 feet, was 2.6° below its mean maximum, and the lowest in September in approximately 8 years of record.

### Stations With More Rain in September 1968 than in Any Previous September

### (25 years of record or more, only)

St	cation	Length of Record (Yrs.)	Previous Greatest September Total	September 1968
L	ANAI			
	Lanai City	38	7.74 inches	8.85 inches
Н	AWAII			
	Ahua Umi	46	5,50	8.80
	Honaunau	30	10.07	10.15
	Pakao	39	11.76	12.10

### Stations Which Recorded their Highest September Temperature of Record in September 1968

### (10 years of record or more, only)

St	ation	Length of Record (Yrs.)	Previous Highest September Temperature	Highest in September 1968
OA	AHU			
	Makapuu Pt.	17	89 degrees	90 degrees *
Н	AWAII			
	Opihihale 2	10	85	87

### HAWAII - SEPTEMBER 1968

### SPECIAL WEATHER SUMMARY - CONTINUED

Stations Which Recorded their Highest September Average Maximum
Temperature of Record in September 1968

(10 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Highest Sept. Average Maximum	Avg. Maximum in Sept. 1968
OAHU			
Makapuu Pt.	17	83.3 degrees	84.8 degrees *
HAWAII			
Kona Airport	19	86.4	86.8 *
Naalehu	13	83.6	84.6 *
Opihihale 2	10	81.0	81.4
Upolu Pt. USCG	11	86.3	86.5

<sup>\* --</sup> Highest in any month.

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Russell Dorr Acting State Climatologist, Hawaii P. O. Box 3650 Honolulu, Hawaii 96811

																														HAWAI1 SEPTEME	BER 1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12		of Mo	nth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	0 31
1SLAND OF KAUA1													-	10			10	.,		10	20	-		20	-	20	20	21	20	20   0	0.
ANAHOLA 1111 A 88YOE3HOOO 3TA 985 A EAST LAMA1 934 A ELEELE 927 A HALAULA 1110 A HALENANAHO 1006 A	2.37 2.06 2.14 .47 4.00 5.31		•	.10 .38 .32 .09 .10	.62 .01 .01 .06			:	*	.56 .06 .06	.18 .07 .07	.03	.03	.08 .05 .05	•	•	.03 .21 .35 .12 .22	.02	.04	.02 .05 .10 .02 .14		*	:	.41 .05 .10	.11 .03 .18 T	.17 .13 .11 T	.01	.88 .52 .18 .13	:	*	.04
MUKIPO 945 ILIILIULA INTAKE 1050 INTAKE WALNIMA PC 1086 A KALIMIWAI RES 1131 A KANALOMULUMULU 1075	.73 7.89 5.35 5.84 2.38		.08	.10 .53 .79	.30	•	.64	• 08 •	.20 * .07	1.90 .36 .27 .03	.53 .16 1.20	.08	.18	.32	• 40	• 07	.10	.18	.20	.53	.04 .38 .02	.39	.03	.12 .18 .12	.30 1.10 .36 .52	.60	.03 1.35 .02	.73 .58 .82	*14		.39 .20 .02
KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A KEALIA 1112 KEKAHA 944 KILAUEA 1134 A	6.44 3.88 2.98 .42 5.68	*	:	.20 .18 .09	.05 .10 .45		.04	:	•	1.00 .28 .40 3.10	2.30 1.36 .36	.05	.10	.05	:	:	.39	.09	.05 .10 .24	.15 .35 .42	.24 .04 .10	:	:	.43 .20 .30	.40 .37 .06	.30 .17 .08	.02	.37 .23 .18 .42	:		.02
KILAUEA FIELO 17 1135 A KILAUEA POINT 1133 KOLO 1033 KOLOA 936 A KOLOA MAUKA 994 A	5.39 8.64 1.12 3.15 4.60	:	:	.53	.02	.15	.06	•	3.45	I.77 .44 .27 .37 .84	.43 .05 .17 .21	.04	.04	.12 .07	:	•	.22 .01 .29	.19	.01 .42 .03 .02	.57	.04 .17	:	.24	.10	.32 .82	.47 .25 .13 .49	.04	.30 .77 .47	:	. 1	.08 .82 .10
KOLOKO RES 1137 A KUKU1ULA 935 A LIHUE VARIETY STA LIHUE 1020 A LIHUE 88 AP 1020.1 R	5.88 .95 7 8.43 5.78 3.17	.58	:	.54 .25 .01 .15	.07		.08	* :11 .01	•	2.40 .07 1.34 1.74 1.62	.20 .02 .49 1.25	.05 .06	.13 .31 .02 .03	.27 .02 .15 .13	* 10 * 11	• • • • • • • • • • • • • • • • • • • •	.09 .06	.03	.09 .21 .01	.43 .03 .13 .20	.01	.05	:	.17 .06 .12 .22	.55 .09 .60 .60	.30 .07 .11	.20 .05 .10 .31	.23 .13 .56 .73	* .03	10	.07 .03 .03
HAKAMUENA POINT 940.1 HAKAWEL1 965 A MANA 1026 HOHIHI UPR CRO55 1083 HOLODA 1145 A	.98 2.66 1.34 3.46 1.59	.14	.14	1.50	, 55			.01	.01	.12 .01 .32 .53	.05	.04	.08	.08	.26	.01	.13		.08	.04	.05	.05	.03	.02	.05	.03	.05 .82	.11			.67
HOUNT WAIALEALE 1047 NIU RIGGE 1035 N WAILUA GITCH 1051 A PH WAINIHA 1115 PRINCEVILLE RANCH 1117	21.84 1.14 9.95 4.49 6.24	2.44	1.65 • .04	.16 .96 .20	.14		.04	.28	•	2.48 .09 2.00 .28 1.08	.59 .21 .60 .45	.59	.91 .20 .02	.83 .50 .16	.28	.24	.28	.20	.12 .15	.51 .36 .28	.20	.39	.16		.20 .41 .58	.08 1.16 .65	2.99	.08 .70 1.80 1.12	.16		.28
PUEMU RIDGE 1040 PUM1 1013 A RESERVOIR 6 1004 A HAMIAWA 930 A HAMIAWA MOUNTAIN 990 A	2.41 4.08 4.40 .88	:	*	.19 .14 .19	.15		.03	:	:	.25 .61 .60	.60 .62 .35	.02	.04	.19 .18 T	:	:	.46 .54 .10	.03	.0+	.32 .93 T	.12	:	:	.22	.12 .33 .18 T	.19 .41 .45 T	.03	1.10 .38 .55 .09			.08 T
MAIAMI LOWER 1054 WAIAMI UPPER 1052 WAIAWA 943 WAILUA KAI 1065 WAIMEA 947	6.43 7.94 .48 3.39		.02 .05	.03	.14	.05	.02	.15 .16 .05	.05	.70 1.72 .28	.38 .56	.17	.14	.30	.26 .23	.06	.08	.10 .08	.32	.42	.15	.30	.07	.39 .03	.40 .42	.35	.04	.53 .58 .43 .14	.12 .08		.02
WEST LAWAT 931 A	1.08			.30	.04			٠		.03	.02			.05			.18			.01	.08	٠	٠	.01	.13	.08		.14	٠		.01
ISLANO OF DAHU										1																					
AIEA FIELO 625 761 A BERETANIA PUMPING STA CAMP 84 807 A CHURCH COLLEGE LAIE COCONUT 15LAND 840.1	2.00 1.77 1.27 5.12 4.81	.33		.03	.07			.31 .19	.07	.40 2.15	-01	. 05	.07	.05	.06		.22	.01	.05 .02 *	.03 .01 .01 .07	.09	.13		.17 .02 .04 .03	.15 .06	.02	.74 .11	.25 .21 .55	.03		.07
EMA PLANTATION 741 HELEMAND INTAKE 681 A HOKULOA 725.2 HONDLULU DOSERV 702.2 HONDLULU WOFC 703 R	1.27 6.05 2.84 1.17	•	:	.35	4.05 †	:	.09	.06 .05	:	.23	.06	:	*0*	:	* * T	:	:11	.05	: T	.01	.69	.49 * .69	:	* * T	.01	.90 *	.13	.52 + + -41	1.15 T	. 85	.11 .72 .02
HONDLULU 508STA 704 H S P A EXP 5TA 707 KAMANA 883 A KAMUKU 912 KALUJA FIRE STA 791.3	1.53 1.99 19.16 4.71	.09	1.56	1.19	.17	• 01	.13	.12 .25 *	.05	7.34 1.97	.05	*	I	.02	:	.01 *	.01 2.80 .11	• 01	.10	.01 + .02	.81 .01 .15	.96	.04	.04 .01 1.96 .15	.05	T + .05	.14 .10 .25	.17 .05	.01	• 5 •	.87 .05
KALIMI RES SITE 777 KANEDHE MAUKA 781 KANEDHE RANCH 838 A KAPALAMA 773 KAWAHAPAI 841 A	5.44 6.29 6.53 2.14		.42	.70			* 22 * 78	.76 .02 *	.12	.10 .01 .50 .67	.04	.02	.16	.12	•	• 04	.04	.02 .01 .06	.29 .15 .10	.18 .01 .20	.36	.16	.02	.08 .10 .10	.14	.38	1.28 .19 .45 .13	.15	.02 .11	2.39	.04 .12 .03
KAMAI 1K1 1NTAKE 880.2 A KEMOO CAMP 8 855 A KOOLAU OAM 833 LUALUALE1 804 LUALUALEI WTR TUNNEL A	3.20 2.62 5.54 4.66 3.00	.33	.24	.76 .11	.01		.06	.08	.09	.63 .49	.02		.08	.25	• 10			.12	.21	.28	.05	.07	.10	.40	.34	.04	.15 .64 .10	.29 .17 .50	* *15	.10	. 2 . 45 . 25 . 71
LUNALILO HOME 724.2  MAKAMA KA1 796  MAKAMA VALLEY 800.1  AMAKAPUU POINT 724  MANDA 712	1.33 1.70 .35	3 7			.04			· 35 · 87	.03	.86 1.15	.05	.02	.03	.14	.02	.07	.02		.08	. 02	.09	.36		.06	T .38	.31	* T	.12 .35 .28		.03	.08
MANGA TUNNEL 2 716 MDANALUA 770 NUUANU RE5 4 783 NUUANU RESERVOIR 5 775 A DPAEULA 870	10.68 2.10 5.55 5.95 5.95	.2!	*	.14 1.13 .65 2.20	.02	* T	.98 .02 T	3.36		.14 .07 1.50 1.80	T	* T	. 48 * T	.04 .02 .18	.16 *	• 04	.08 T .20 .33	.03	.15 .05 .18	.10 .15 .14		.08	.01	.58 .05 .28 .94	.68 .12 .12 .33	.17	.92 .03 .74 .46	.10 .45 .52	* .02		.02 .04
PALOLO VALLEY 718 PAUDA FLATS 784 PORTLOCK ROAD 724.4 PRI WAHIAWA 820.2 PUNALUU 884	8.96 12.46 .20	1.26	.90	.36 .06	.02	.01	.42	3.02	1.58 •	.18 .22 .03 2.28		.04	.18 .42 .01	.02 .12 T	•14	. 24	.06	.02	.42 .28 T	.08 .08 T	.68 .92 .02	.04	.02	.28 .46 .04 .07	.36 .34		.90 1.40 .05	.08 .12 .74 .26	.02	.02 .26 .05	.02 .05 .01
PUNCHBOWL CRATER 709 ST 5TEPMENS SEM 788 TANTALU5 2 780.5 UNIV OF HAWAII 713 A WAMIAWA DAM 863	6.8 8.20 2.4	1.0	3.36	.02	.08		.06	.05 .97 	.12 .08 2.54	.07 .07 .19 .29	.01	.08 T	.02 .10	.03 .03 .29	.03	. 15	.03 .19	01	.05	. 25	.09 .34 T	.06 .12 .62	.05 .04 *	.03 .02 .10 .99	.19 .22 .46	.10	.02 .68 .42 .48	.13 .29 .57 .15	T .12		.03
WAIAMOLE 837  WAIALAE KAMALA 715  WAIALUA 847  AAIALUA 847  AAIANAE 798  WAIANAE MAUKA 803	8 · 4 2 · 3 1 · 8 2 · 2	3 ° 7	•	34 T .67	.02			.09	* T *10	2.87	.51 .01 .07	2.05	.21	†26 †	*16	٠	.17		.23 T	.08 T	.13	.04		. 84	.12 .17	.03	.42 .01 .01	.78 .48 .57	.01		. 27
WAIAMA 836 WAIKANE 885 WAIKIKI 717.2 WAIMANALO 794	9.79 13.69 1.6 2.0	6 *	:	. 8 3 •	:	* * T	:	* T	.02	5.20		:	.69	:	•	:	1.47	:	:	.10	.02	1.51	:	1.08	.01	.04	* T 1.24	.58	* * * * * * * * * * * * * * * * * * * *		.03
WAIMEA 892 WAIPAMU 750 WILHELMINA RISE 721	1.9	2 .	:	.53	.37		.14	:	* *	.07	.02	.02		.08					. 20	.10	.64	•	:	.01	.10	.52	.16 .04 .10	.25 .62 .06	:	:	.05
The state of the s	2.3			• 1 2																											

Continued																													_		HAWA1 SEPTE	1 MBER	1968
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	lonth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
15LANO OF HOLOKAL	-																																
KALAUPAPA 563 KAUNAKAKAI 536 KEONELEELE PENS 551 KUALAPUU 534 MAPULEMU 542	A A A	1.43 .26 .85 1.27 2.68		. 22			. 39	.13	.04	٠	.10		. 06				.14	.21		.01				.06	.02	.05		.86 .26 .63 1.03 .26	.22	.31	.03		
HAUNALOA 511 HOLOKAI AP 524 PUUCHOKU RANCH 542.1 HAIKOLU 540	A	1.66 1.07 3.33 4.42	7	. ~ 1	T .96	.03		.20	.60	.62	.30	.03					.03	.02	.20	.20	.01		. 4 5	.02	T .12 .58	.97	.05	.20 .47 .81 1.16	.19		Т	1.36	
1SLANO OF LANAI																								٠									
KANEPUU 690 KAUMALAPAU MARBOR 658 LANAI CITY 672 LANAIHALE 684 MAMANA 694	4444	2.95 4.13 8.85 11.30 1.32	. 52	.13	•	.30	.22			.29	.67 .14	T	:	.79 4.12	.20	T	:	T •	:		7 .02 7 .27	.04	4.26		1.81	.02	.01	.87 1.10 1.58	.35	01	T *	1.18 .18 .79 6.69 1.32	
HALAUEA 676 MAIAKEAKUA 685	Å	1.52		:	• 11	• 22	. 57	:		•	•			.53	:	•	•	1.74	*	•	.02	*	:	•	.55	:	:	1.08	:	:	:	.19	
15LANO OF MAU1																																	
AUNAMI-292 HALEAKALA 8 E \$ 434 HALEAKALA RANCH 432 HALEAKALA RANCH 432 HALEAKALA R\$ 338 HALEAKALA \$UMMIT 338.4	4 4	1.33 5.47 1.08 4.53 5.99	.04	1.60	.02		٠	.38		.50	.79 .36 .24 .57	٠	e T	. 05	.01	•	.14 T	.03	٠	.03	* T .05	.05	.22			.10	.61	.06	.37		* T	.45	
HALIIMAILE 423 HAMAKUAPONO 485 HANA 354 HANA AIRPORT 355 HANAHULI 281	A	1.07 2.38 6.24 12.05 12.28	1.25	.29	. 84		т	. 21	.11 .10 .20 .08 1.34	.02 2,45 .23	.15 .03 .43 .08		.03	.09 .16	.08	.07	.22 .28 .22	.30	.03	.03	.32	. 28		.10	.04 .30 .05 .18 2.24	.05 .18 1.55 1.64	.13 .33 .71 1.48 .29	.16 .46 1.95	.02 .50 .07	.02	.01 .05 1.91	.20	
HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHUA 493 HONOMANU GULCH 341 KAANAPALI AIRPORT	4444	5.32 4.70 1.55 6.20		:	* • • 2 2	:	•	:	* * * *	:	:11	•	•	:	.03	•	:	1.77	:	.05	:	* * T	:	:	.29	1.70	.26 T	.08	:	:	•	1.25 4.70 6.20	
KAMOMA INTAKE 374 KAMULUI MB AP 398 KAILIILI 436 KAILUA 446	A R A	5.93 .21 9.10 7.83	* T * * 1.28					.01	.03	.30	• • • • • • • • • • • • • • • • • • • •	.12	• • 18	.08	1.48		.03	* *58 .21	01	.02	•	1.38	• • • • • • • • • • • • • • • • • • • •		.01 .72	.10	.03	.89	.20	.01	.02	9.10	
KAUAULA 1NTAKE 375 KEANUA 410 KEANAE 346 KEANAKAPU BEACH 260.2 KIME1 311	A	3.00 .17 10.90 1.67	.08	÷ <sup>01</sup>	.31						.74				.06			T *		.02	•		I		•	I	.06	7 • 1.61				0.90	
KIPAHULU 258  KULA HEIGHTS 323.2  KULA SANATORIUH 267  LAHAINA 361  LAUNIUPOKO INTAKE 376	4	3.81 4.92 .52 2.00	.03	.02	.26	.23		,15	.38	1.49	.20 .08 .27	.14	.40	.10	.25		.43	.26		.06	.02	.02	1.58	.11 T	.16	.05	. 93	.26 .35 .52	.34	1.03		.05	
LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 MAMINAMINA 466 NAKALELE -FLO 60-497 OLINOA 332	A A A A	6.80 1.11 2.30 3.61	* .17	.21	•	.21	0 01		.07		• •43 2•12	.02	•		*			* *02 *01			* * T	.20	:		.05 .51	.20	.45	.30 .19 .25	.05	:		6.80 1.54	
OLOWALU 296  OLOWALU GULCH 377  PAAKEA 350  PATA 406  PANILEIMULU 259.2  PAUMELA 490	Δ Δ	4.97	1.30	• •02 •02		•		.06	.06 .41 .12	1.32	• 30	.41	. 20	.07	.11		.66	.78		.17 .06	• . 2 4	.54	.10	.02	.40	3.06 .11 .78	1.45	.03	. 22	.03	.17	1.20	
POHAKEA BRIOGE 307.2	Δ 4 Δ	3.32 .03 4.89 11.60 2.40		•	:	*	:	:	:	:	:	.15	.04	:	.02	:	:	* * *	:		:	:	•	:	**	. / 6	.07	.19	.01	:	0 1	4.89 1.60 2.40	
SPRECKELSVILLE 400.2 THIN GATES 201.3 UKULELE 333 UKUMEMAME 301 ULUPALAKUA RANCH 250	A A	.52 .00 3.62 .55	.18	.01	•	٠	٠	.10	• • 14	٠	•	.02	٠		.54		.05			.03	* 3.00	T *	* 04	•	.03	.01	.11	.37	•			3.62	
WAHIKULI 364 WAIEHU CAMP 484 HAIHEE VALLEY 682 HAIKAMOI 449 HAIKAMOI 0AM 336	A A	1.27 1.13 1.58 10.00 10.21	.03	.56		.03		* .01			.22		.12	.08		:	:	.49	* T	.02	.20	e .26		:	.10 .17	.12	.32	.47	.55	:	* 1	0.00	
eAIKAPU 390 HAILUKU 392 HAIDPAI RANCH 256	A	.57 1.02 2.66	.20		.78					.02					T		Т			. 05		.80	. 02		.15	.07	.13	.02					
15LANO OF HAWAII																																	
AHUA UH1 75 AHINI 182-1 EAST HÖNOKANE 183-2 HAINA 214 HAKALAU 142	AAA	8.80 4.73 7.50 1.16 11.48	. 24	.28	:	1.58	•	.03	.51	.23	•	.62	.14	.03	•	•	.12	.02	•	.20	.09 1.62	.21	.05	.03	.10				7,50	.08	.03	8.80	
MALEMAUMAU 52 HALEPTULA 117 HALEPOMAKU 111 HAHATI VOLCNS NP HQ 54 HAHI 168	A A A	1.98 4.06 1.91 4.57	.02	:11	.78	.01	* * T	:	.29	1.08	• • • • • • • • • • • • • • • • • • • •	1.84	. 02	.16	* * T		.26	.03	* * T	.01	.13	.29	.20	.07	.20	.04	.05	.08	.20	.02		1.98 4.06 8	
HÎLO H8 AIRPORT 87 HOLUALOA 70 HOLUALOA 8EACH 68 HONAUMAU 27 HONOMINA 137	R A A	8.53 8.40 1.12 10.15 10.26	.03	.01	· 20	.55	.40	.18	.00	:14 1:40 :29	1.50	.07 e .14 .02	.05	.04	.31 .06	.33	.10	.03 1.05	2.10	.12	.18	.14 .47 .78	.40	. 22	.05	.04	.28	÷41	.13	1.24		8.40	
HUALALAI 72	A A A	4.73 13.03 3.40 1.22 4.57	3.55	.30	.12	2.00	:	.02	.29	.30	.15	.64	.38	.04	* • • 3.78	:	.75	.98	:	.14	.06	.11	.04		.10	.44	.16	.82 .71	.12	.89	*31	1.00	
KAALA IKI 12 KAAHALOA 29 KAIHALIU 73.2 KALAPANA NO 1 67.8	A	6.36 6.86 6.07 11.10 1.73	.82	.06	.20	.18	T .46	.25	.67	.16 .37 1.99	.03 .05 .11		.04 T	.37	.02	.04	.50	.10 .47 .01	.08	1.20	.12 .12 .23	.12 T	.65	2,25	.20 .28 .02	.37	.42	.20 .01	.79	.01	* 3	1.34	
KAMUELA 192.2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36	A	1.19 1.10 0.42 14.58	. 52	.88		.03	:	3.72	1.92					.02 7	* 7.08	. 25 	.01	.21	T		:	* 2.26	.20	.50	.20	.02 T	T .50		° 01 T .10	• 21	T	.14	

See reference notes following Station Ind

Continued																														HAWA: SEPTE	I 1 EMBER	1968
Station	Total	_				1								Day	of M	onth																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAUMANA 88.1 KAWAINU1 LOWER 193 A KEAAU 92 KEALAKEKUA 26.2 KEMENA 181.2 A	15.7	3.6	,36	1.16 T	.51	.02		*14	2.15	1.13	.32	.38	.38 .05	.92 .02 1.02	* 12 • 49	.49	*30 T	.10 .04 T	.07 .36 1.77	1.41 27	.56 1.82 .33 T	.16 .82 .08	.14 .02 .38	.17	.42	.12	.16 .40 .01	.36 2.90 .67 T	.06	.24	1.76	
KIDLAKAA A C F 6 A KIPA 87.2 A KOHALA 179.1 A KOHALA MAULILI 176 A KOMALA MISSION 175.1	1.60	1.80	1.30	.20 .41 1.70		•	*	* 10 T	1.15	.07	. 42	.14	.36 .02 .06	.02	* T *	.61 .09	* .72 .16 .37	.04	.11	.32 .01	1.09 .25 .09	98	.04	.13 .14 .03	.24 .27 .11 .37	.49 .27 .05	.08 .01 .14	.80 .01	.84	*74 *	4.33 .53 .07	:
KO1AWE LOWER 196 A KONA AIRPORT 68.3 KONA VILLAGE 93.8 KUKA1AU 222 KUKU1MAELE H1C 199	4.0° .80 .51	.11	.14	.15 T	.09	.25	1.65	.09	٠	.02	.01	.12	.04	.50	٠	.06	.03	.02	•	٠	.70	•	•	.10 .15	.19	* .20 T	* 18 .08 .04	.08 .01	.06	.03	*	•
KUKUIHAELE MILL 206 A KULANI CAMP 79 KULANI MAUKA 76 A KULANI SCHOOL SITE 78 A LANIMAU 68.2	1.16 6.8 2.9 5.4	.25		.10		٠	.26	.47	1.20	.20 .02 *	. 16	.03	.05		.05 .05 1.62		.12		٠	.10 .02 +		.39 1.30		.23	.33	.05 .22	.07 .49 .11	.20	.05	.83	.03 1.72 2.10 2.10	:
MANUKA 2 MAUNA KEA BEACH 98 MAUNA LOA SLOPE O8S MIDOLE HOLUALDA 68.1 A MIDOLE PEN 147.1 A	4.46	1.0			.02		.14	.44	.43	1.74	T .08	.05	• 19	.17			T .	٠	.21		.02	*09		.33	.04	.10 T	.06	.01	.10	.04	1;41 +	:
MOAULA 18 A MOUNTAIN VIEW 91 NAALEHU 14 A NAPODPOD 28 A NAULU FOREST 38.6	3.1	7 •	.68	.11			•	.13	2.26	* 1:17 :01 1:18 :01	.56	.30	.32	.01	* •17 •	.72	45 T 2,59	.02	.17	1.00	.47 .09 *	.33	.08	.07 .09 3.43	.34	.06	.10 .06 .06	.94	.36	1:38	1.95 1.82 .20 .23 1.97	:
NIULII 179 ODKALA 223 OPIMIMALE 2 24.1 ORCHIO LAND EST 91.5 PAAUMAU 217	8.1	1 .84	.17 *		Ì	. 01 *	7.28 .01	.04	•	.05 1.34	.05		.01 .13 *	.05 3.02	* T	.15 T	.05 .01 *	2.28	.04	.02 .01 .45	.38 .26 T 2.64 .22	.15	1.54	.18	.37	.26	.05 .03 .14	.05 .46 3.11	.09 .07	.02	.20	:
PAAULU 221 PAMALA 21 PAMOA 65 PAKAO 37 PAPAIKOU 144.1	46.00	7 4.3	.49	1.35	.03	÷17	*19 *		3.79	T 1.99 *	.25	.75 +	.81 .18	.04	.12 +	.03 .52 •	.03 .31 *	.10	.25	.02	.12 .13 .30	.89	.07	.13 .54 .19 *	.15	.01 .02 .05	.43	.01	.06	.35	.23 .45 12.10	
PAPAIKQU MAUKA 140.1 PEPEEKEO MAKA1 146 PIIMONUA 89 A POMAKULOA 107 A PUAKO 95.1	10.1		.53		.02	-	.07	.98	.73	2.00	.86	.32	. 47	-01	-01	.94	.30	:	.18	.40		.33		.06	.57 .87 +	:44 :17 -	.30	.35	.61	1.24		:
PUU KIME 120 A PUU LAAU 102-1 A PUU LEMUA 773 A PUU MAL1 113 A PUUGKUMAU 167 A	2.6	0 0	:	1.29	.37	:	:	:	:	:	:	:	.05	.01	:	:	* * * * * * * * * * * * * * * * * * * *	:	:	:	.01	:	:	.01	.11	* * * * * * * * * * * * * * * * * * * *	:	.01	:	:	2.79 2.65 4.50 2.77	:
PUU 00 82 PUU WAAWAA 94.1 A SAOOLE ROAD 1 84 A SOUTH POINT CORRAL 3 A UMIKOA 118	10.3		.62	.23	.48		1.95	.09	.65	:19 1:43 e	.15	.03	.07	2.85	* .10	.27 •	.38	.01	:	.10	.23 2.40	. 65	.11	.05	.20	.09	.05	.15 .52 3.10	.05	.13	.76 .15	
UPOLU POINT USCO 159.2 WALAKEA SCD 88.2	14.8		2,60					.17	2.16	.39	.36	.08	. 2 4			.06	.17	.20	.02	.04	.44	.08	.13	T	.15	.40	.11	, 43	.21	.71	2.02	:

# SUPPLEMENTAL DATA

		(	Wi  Speed -		)		Relati		dity ave	rages		Num	ber of d	lays with	precip	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MEDI	2 PM	ME g pm	Trace	.0109	10-49	20-99	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrue to su
HILO. HAWAII. WB ATRPORT	18	1.0	5.4	17	E	3∩+	91	81	73	8.8	2	5	15	1	3	n	26	41	7.2
HONOLULU. OAHU, WBFC	5	9.8	11.4	25	NE	17+	78	70	55	71	8	8	2	1	0	0	19	78	4.6
KAHULUI, MAUI, WB AIRPORT	5	9.8	11.3	31	NE	13	83	72	55	75	2	6	1	0	0	0	9	78	4 • 5
LIHUE + KAUAI + WB AIRPORT	6	8.1	9.7	19	N.E	24	77	74	66	74	2	9	7	0	1	0	19	71	5 • 4

# DAILY TEMPERATURES

	7									DA	AIL.	Y	TE	MF	ΈF	RA'	TU	RE	S										_		AII EPTEM	BER 1968
Station			,														of Mo			.0	00	21	20	23	24	25	26	27	28	29	30 3	Average
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	23	20	27	20	23	30 3	1 44
• • •																																
ISLAND OF KAUAI			78	77	76	80	78	72	78	69	76	74	79	80	80	78	79	80	78	75	75	77	79	73	75	73	76	76	73	72	72	76.2
XANALOHULUHULU 1075	MAX	77 64	59	59	53	52	52	50	51	55	59	59	57	62	60	55	52	54 89	58	60	60	54 86	49 88	56 87	60	51 87	53 85	5 5 8 5	55 88	50	49 88	87.3
KILAUEA POINT 1133	MAX	85 74	86 75	87 77	87 76	90 74	74	89 77	67	6.8	69	74	76	73	76	76	76	74	73	74	75	75	74	73	72	74	73 83	75 83	74 83	74 83	72 84	73.8
LIHUE W8 AP 1020-1	MAX	85 74	85 70	72	77	85 76	72	85 72	85 75	70	85	77	74	75	74	76	75	74	74	72	75	75	71	72	72	74	71	75 88	74	71	65	73.4
MAKAHUENA POINT 940.1	MAX		86 75	89 75	87 76	78	74	74	88 78	72	85 72	87 78	8 8 7 5	88 76	74	86 74	77	78	77	74	76 89	75	74	74	74	74	73	74	76 90	74	74	75.0
MANA 1026	MAX	90 69	91 70	92 71	92 71	88 69	70	90 71	89 70	70	70	89 71	70	73	70	70	70	72	69	73	6.8	72	70	68	70	66	68	70	67	67	67	69.7
NIU RIDGE 1035	MIN	87 65	88 66	86 64	86 66	87 65	86 65	86 65	85 65	83 65	82 65	85 64	86 65	86 66	85 65	64	8 5 6 5	86 65	66	87 66	65	65	85 66	85 64	65	63	64	65	8.5 6.6	84 65	85 65	85.2 65.0
WAIAHI LOWER 1054	MAX MIN	84 66	84 64	86 66	82 64	84 64	85 65	86 65	89 67	80 67	84 69	85 69	85 68	84 67	82 68	80 65	80 67	85 68	8.5 6.7	83 68	83 66	68	85 67	86 69	82 64	63	63 66	82 66	83 66	8 4 6 4	84 61	66.1
ISLAND OF DAHU																																
ENA PLANTATION 741	MAX MIN	88 74	87 70	88	90 69	90 69	90 70	88 71	88 70	86 70	90 72	90 71	90 73	90 71	90 71	91 74	89 73	90 71	90 73	88 70	88 69	88 70	89 68	89 70	89 72	89 70	85 72	88 69	87 70	86 67	8 5 6 8	88.5
HONOLULU W8FC 703	MAX	88 76	88 72	88 76	92 73	90 75	91 74	90 72	90 74	91 74	91 76	91 76	91 76	88 73	87 74	8.8 7.8	87 77	91 76	91 76	91 74	91 73	90 74	91 73	89 73	90 75	91 73	85 74	90 74	89 76	91 71	87 70	89.6 74.3
HONOLULU SUBSTA 704	MAX MIN	86 77	86 76	84 77	87 75	85 76	8 5 7 5	86 72	8 5 76	85 76	85 78	86 78	8 5 7 6	86 78	86 78	86 78	87 77	86 78	86 76	86 75	85 73	86 75	85 76	84 77	85 75	85 77	84 76	8 5 7 7	84 76	86 73	83 73	85.3 76.0
KAHUKU 912	MAX MIN		90 79	89 73	90 77	89 78	87 78			89 70	89 73	88 75	86 75	8 5 7 5			8 5 7 5	86 77	86 73	86 74	86 74			86 72	86 74	86 76	86 73	85 73			87 70	87.0 74.5
KANEOHE MAUKA 781	MAX MIN	84 67	85 68	83 73	8 5 7 4	85 74	85 74	86 74	84 72	85 73	85 75	8 4 75	8 5 7 4	86 75	85 75	85 76	85 76	85 74	86 74	85 73	85 71	85 73	85 74	85 74	8 5 7 3	85 73	8 1 7 3	83 74	84 71	84 69	85 70	84.7
LUALUALEI 804	MAX MIN				93 71	91 72	92 74			91 71	87 73	90 73	90 76	88 78			90 76	90 73	90 74	90 74	90 72			91 72	89 75	89 71	89 75	89 73			89 68	
MAKAPUU POINT 724	MAX MIN	82 75	90 75	87 76	8 1 7 2	89 78	84 75	84 72	8 8 7 5	84 76	81 75	83 76	82 74	83 75	83 75	8 2 7 5	82 75	83 75	83 75	89 75	81 75	8.8 7.5	83 75	89 74	83 74	88 75	8 2 7 4	8 8 7 5	8 2 7 3	89 75	82 73	84.5
OPAEULA 870	MAX	87	85 70	86	84	84	84	87	87 67	86 67	82 67	84	86 67	8 5 6 9	84 70	85 70	85 70	86 70	85	85 68	85 66	88	87 65	86 68	84	86 65	86 65	81	85	83	87 65	85.2 67.1
PRI WAHIAWA 820.2	MAX			91	86	89	86	90	90	88	88	89	89	90 71	88 72	88	89	89 70	89	88 68	88	88	90	90	87	88	88	80	86	84	87 65	88.0
WAIALUA 847	MAX	87	8 4 7 2	88	88	91	90	90	88	88	85	89	90	90	88	89	88 72	90	90	90	92	87	88	88	89	88	90	87	86	86	88	88.4
WAIKIKI 717.2	MAX	89	90	91	90	91 73	89	91 73	90	91 71	89 76	88	89 76	90 76	89	89	90 76	89	89	90	90 76	89	93	88	89 73	88	88 74	87 75	88 75	87	89	89.3
	1-1114	10	,,	1		13	16	13	, 4	' -		, 0	,,		•	, ,	10	,,	1	14	70		,,	14	, ,	1	, 4	,,	'	10	,,	14.2
ISLAND OF MOLOKAI																																
MOLOKAI AP 524	MAX	83	89	86	87	87	85	86	87	88	87	87	86	8.8	87	87	86	87	8.5	86	86	86	8.5	8.5	87		8.5	81	8.5	86	87	86.1
	MIN	75	72	75	70	70	72	70	77	73	75	75	74	73	74	74	74	74	74	71	73	73	77	73	73	75	73	73	73	76	71	73.4
ISLAND OF LANAI																																
LANAI CITY 672	MAX	8 2	83	81	8 2	78	81	80	80	80	80	79	8 2	80	79	80	79	77	ВО	82	81	81	78	79	78	81	78	78	77	80	8 2	79.9
	MIN	65	64	66	64	65	64	68	69	69	68	69	68	69	68	66	67	67	69	68	67	66	66	66	67	69	66	67		67		66.9
ISLAND OF MAUI																										:						
HALEAKALA RS 338	MAX	68		66		68	69	6.5	66	67	65	66	65	71	66	6.8	68	71	67	66	64	65	66	65	64	63	63	67	67	63	61	66.1
HALEAKALA SUMMIT 338.4	MIN	52	49 56	48	4.8 5.8	52 57	46 60	45 62	46 57	45 57	46 56	61	63	50	50	53		52	52	47 55	47 55	48	43	48	50		49	48	50	43	44	48.0
HANA AIRPORT 355	MIN	39	4 Z 8 6	87	87	41 87	40 86	39	41 87	41 85	45	48	48	45 86	43	48	43	43	38	41	40	42	40	39	41	41	42	42	42	39	40	42.0
KAANAPALI AIRPORT	MIN	70	72	74	74	68	70	73	71	71	72	70	69	70	69	73	72	70	70	69	69	70	86 68	85 69	71	85 71	8 5 7 2		86 68	67	68	85.9
KAHULUI W8 AP 398	MIN	74	67	73	72	70	73	70	72	71	73	72	88 71	73	70	89 77	89 73	71	73	71	88 73	72	89 69	89 73	88 73	69	87 72	70	73	89 68	87 70	88.2 71.6
	MIN	95 72	91 72	72	70	8 9 6 2	67	92 68	91 68	90 68	72	91 70	73	91 73	89 73	73	92 67	90 65	88 71	91 67	90 69	92 68	89 64	89 72	89 74	88 72	88 69	91 66	90 72	91 65	91 66	90.4
KAILUA 446	MIN	69	68	72	8 3 72		69	70	70	83 69	82 70	82 70	81 69	82 70	82 69	8 2 70	80 70	81 70	8 8 6 8	81 69	83 69	81 69	83 69	83 68	82 69	80 69	80 69	80 70	8 1 6 9	8 <i>2</i> 66	82 65	81.9
KEAWAKAPU BEACH 260.2	MAX	73	73	91 73	70	93 67	94 67	91 68	92 69	94 70	90 69	93 69	90 69	89 68	92 65	92 70	92 69	91 67	92 68	90 68	92 70	88 70	91 66	91 68	90 71	92 68	87 70	87 67	93 65	90 67		91.2 68.7
XULA SANATORIUM 267	MAX	75 58	76 62	75 63	74 60	77 57	76 58	74 59	72 60	75 60	73 58	74 59	75 60	76 59	77 57	76. 58	75 58	77 59	76 60	75 59	72 60	74 60	74 57	76 58	74 61	76 61	7 2 6 2	73 58	74 56	76 57		74.8 59.1
LAHAINA 361	MAX																															

DAII	V	TEMPER	ATHREC
וותע		T TTAIL TIL	MIUNLO

Continued		

HAWAll SEPTEMBER 1968

Continued												_					10.		~											- !	SEPT	EM8EF	R 1968
Station																Day	of Mo	nth															Average
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
WAILUKU 392		84 73	92 72	89 72	90 73	88 74	88 74	88 74	88 72	91 74	88 74	89 75	89 75	88 75	88 75	88 75	89 74	89 74	88 73	88 74	88 74	8 8 7 4	88 73	88 72	8 8 7 2	87 74	87 72	87 72	88 72	86 72	8 8 6 8		88.2 73.2
ISLAND OF HAWAII	MAX MIN																																
HAINA 214	MAX MIN	83 66	87 70	87 69	85 65	86 65	87 68	85 65	87 66	86 67	86 70	87 70	87 67	85 69	87 68	84 70	86 68	86 65	87 67	87 66	87 65	83 66	86 67	86 67	8 5 6 7	85 66	85 65	83 67	86 67	85 64	84 65		85.7 66.9
HAWAII VOLENS NP HO 54	MAX MIN	74 55	74 57	74 59	73 59	73 55	72 57	73 57	70 57	69 57	71 57	71 60	68 57	74 57	75 57	74 59	73 56	73 56	72 57	71 58	74 57	71 57	70 56	71 58	73 59	68 51	74 52	7 o 5 5	70 55	69 57	69 52		71.8 56.5
HILO WS AIRPORT 87	MAX MIN	85 70	81 70	86 70	8 5 67	85 67	8 5 6 8	80 70	84 68	85 69	84 72	86 71	87 69	85 68	83 70	85 71	8 8 70	85 68	86 68	85 70	85 70	85 71	85 67	84 69	85 70	86 67	80 70	8 5 6 7	81 70	84 70	86 67		84.5 69.1
KAINALIU 73.2	MAX MIN	85 67	81 66	81 68	83 67	83 68	80 70	81 68	80 66	79 65	82 66	79 65	81 67	80 67	8 2 6 5	83 67	83 66	82 65	83 67	84 65	82 63	80 67	79 67	80 68	81 65	80 65	81 65	79 65	81 64	8 O 6 6	83 68		81.3
KAMUELA 192.2	MAX MIN	77 60	8 2 6 0	8 1 6 0	78 58	79 56	79 60	80 60	79 56	76 60	77 60	76 61	77 60	80 61	78 60	74 58	76 58	78 58	76 61	77 59	76 58	76 58	78 58	75 59	76 60	76 57	80 56	78 58	75 60	75 57	80 54		77.5 58.7
KAMUELA AIRPORT 191	MAX MIN	80 51	81 51	8 2 6 0	79 52	77 51	77 54	78 56	8 0 5 4	76 52	79 60	78 52	78 91	79 59	78 58	75 58	79 55	78 54	77 52	78 57	78 57	78 59	80 59	78 60	77 64	78 63	78 58	76 51	77 59	76 51	78 64		78.1 56.1
KEAAU 92	MAX MIN	84 65	84 65	84 65	85 67	82 65	86 67	87 67	87 67	87 67	85 69	87 69	87 68	88 67	87 67	87 67	87 67	8 8 6 6	87 67	86 67	86 67	86 67	86 67	86 67	87 68	87 66	87 66	8 2 6 7	87 67	87 67	87 67		86.1 66.8
KEALAKEKUA 26.2	MAX MIN	81 67	8 2 6 6	83 68	83 66	81 66	82 65	81 65	82 65	82 67	78 69	82 66	81 67	82 67	8 2 6 5	82 65	82 68	83 66	81 66	79 66	81 65	80 67	80 67	81 65	8 o 6 5	80 67	8 O 6 6	82 68	83 65	8 O 6 5	8 2 6 5		81.3
KOHALA MISSION 175.1	MAX MIN	80 69	83 70	83 70	84 71	83 70	83 71	83 70	85 70	85 71	84 72	85 72	85 71	84 71	85 71	83 71	84 72	84 68	84 69	84 70	85 69	83 69	85 71	85 69	84 70	82 68	84 69	83 71	83 69	84 67	85 68		83.8
KONA AIRPORT 68.3	MAX MIN	8 5 6 8	85 68	87 69	86 69	87 69	86 69	87 69	87 69	88 69	87 69	87 64	87 66	68 69	87 65	8.8 6.9	88 70	88 64	87 62	89 63	87 63	8 8 6 6	87 66	88 68	8 5 6 8	85 68	85 68		86 68	86 68			86.8 67.3
KULANI CAMP 79	MAX MIN		71 51	72 52	70 49	69 47	68 47	70 50	62 50	65 49	65 55	66 55			64 48	70 47		70 48	68 49	69 46	67 46	68 47		66 49	68 52	67 47	71 51	69 48		68 49	67 49		67.9
MAUNA KEA 8EACH 98	MAX MIN	88 73	88 73	87 75	88 73	89 73	88 73	88 73	88 72	87 73	88 77	89 74	87 74	89 74	92 74	98 73	88 76	88 75	89 77	90 75	88 75	85 73	88 73	88 75	88 76	88 74	89 75	89 74	89 75	87 72			88.5 74.1
MAUNA LOA SLOPE OBS	MAX MIN	52 37	47 36	51 37	54 36	55 35	5 2 3 6	49 38	50 39	49 37	54 39	54 37	60 40	59 39	57 38	5 4 3 9	51 36	54 32	57 37	57 37	53 37	52 38	53 36	56 38	57 38	56 35	5 2 3 7	53 36	52 36	48 36	53 36		53.4 36.9
MOUNTAIN VIEW 91	MAX MIN	83 66	79 62	79 64	79 62	82 60	82 60	80 62	72 62	76 63	80 64	79 65	8 1 6 2	63 62	8 2 6 2	79 66	77 65	8 2 6 2	8 2 6 2	82 62	81 64	79 65	80 61	8 2 6 4	82 65	81 61	83 61	74 60	80 61	78 64	79 61		79.9 62.7
NAALEHU 14	MAX MIN	85 69	85 67	86 67	84 70	85 70	85 70	85 70	85 70	85 70	85 72	85 72	84 70	86 71	8 4 7 1	85 69	8.5 6.9	86 71	86 72	86 69	85 69	85 69	84 68	84 68	84 69	83 70	86 71	82 70	82 70	84 69	84 69		84.6 69.7
DOKALA 223	MAX MIN	82 66	84 71	8 2 7 2	83 71	84 70	84 73	84 73	85 72	8 5 72	85 70	85 71	85 71	83 72	85 71	85 71	85 74	85 73	85 69	85 70	85 70	86 72	83 70	85 69	85 69	84 69	85 68	8 1 7 2	85 70	83 70	84 69		84.2 70.7
OPIHIHALE 2 24.1	MAX MIN	83 64	84 66	83 65	81 65	81 63	85 64	84 63	81 64	8 4 6 9	84 64	8 2 6 4	77 67	83 65	83 64	8 5 6 6	87 65	82 65	78 62	8 1 6 3	79 64	77 65	79 63	81 65	78 66	77 64	79 64	8 2 6 2	8 1 6 2	82 62	79 63		81.4
PAHALA 21	MAX MIN	84 68	85 68	8 2 6 6	82 64	84 64	85 64	85 65	84 70	81 65	82 66	84 67	80 65	83 65	85 63	87 68	85 66	85 65	85 67	85 67	85 68	84 70	83 65	83 65	82 66	80 63	85 64	80 64	83 64	82 67	83 64		83,4 65,8
UPOLU POINT USCG 159.2	MAX MIN	8 4 72	88 72	89 71	87 75	87 71	87 73	87 73	89 72	89 72	87 75	87 74	87 70	87 75	87 73	8 2 78	87 74	87 74	85 74	86 73	8 5 7 4	86 74	87 73	87 72	85 72	86 70	86 72	86 73	85 71	85 71	87 73		86.5 72.9

# EVAPORATION AND WIND

HAWAII SEPTEMBER 1968

<b>7</b>																Day	Of N	lonth															78 . 65
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
SLANO OF KAUAT																																	
LIHUE WB AP 1020.1	EVAP W1NO MAX M1N		97 95	94	78 92	156 95	95	91	130	135	129	*	.69 266 94 73	146	130	144	151	.30		130	136	132	99 95	114	94		129	133	141	126 93	93		9.20 3742 93.4 72.4
* * * ISLANO DF DAHU																																	
HONOLULU OBSERV 702.2	EVAP WINO MAX MIN	40	100	97	13	30	29 94	24 94	27 96	23 93	32 93	38 95	29 94	36 93	51 97	45 97		.30 38 99 73	.30 35 95 73	28 95	.27 30 95 73	35 93	25 95	29 94	30 96	37 96	32 92	86	34	.19 31 90 70	25		7.97 935 94.9 72.2
* * * ISLANO OF HAWA]]																																	
HILO W8 AIRPORT 87	EVAP W1NO MAX M1N		42 90	49 89	34 92	50 92	35 89	30 78	12 82	56 90	46 85	55 88	36 93	93	32 88	47 87	49 89	69 93	- 22 52 92 67	50 92	90	51 90	92	91	.09 36 88 68	34	* 36 82 70	90	59 87 70	.04 19 86 70	60 89		5.118 1317 88.8 68.8

o z		- B	DE		OBSERVA TIME A	ND			NO.		÷ 35	DE	UDE	NOI	TI	ME A		
INDEX NO. DIVESTON	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	PRECIP.		OBSERVER	STATION	INDEX	OISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION		PRECIP	SPECIAL	OBSERVER
SUARI OF CAUAL	0.04	4 21 42	150 **	1630		-	MC BRYDE SUGAR CO.	1SLAND OF LANA1	3130 0	1 LAMAINA	1	20 53	157 00	1640		w)	c	DOLE COMPANY
ALIMANDER RESV., 983   140 02 K ANA-HOLA 1111   A 145 01 K BRVDESHUOD STA 985   A 240 02 K FAX1 LAWAL 934   A 0456 02 K	AWATHAU OLOA	2 21 57 1 22 09 2 21 56	159 32 159 19 159 32 159 30	1610 116 720 440	7 A 7 A 7 A	ć	LIMUE PLANTATION CO MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD	KAUMALAPAU MARBOR 658 A LANAI C1TY 672 A LANAIMALE 684 A	3461 0 5286 0 5301 0	1 LAMAINA 1 LAMAINA 1 LAMAINA	1 1	20 47 20 50 20 49	157 00 156 55	30 1620 3370	7 6	8 A 7 A W1	c	DOLE COMPANY DOLE COMPANY DOLE COMPANY
FANT LAWAI 994 A 04% 02 K Fab 3 RE RY IN 1074-1 046% 02 K *LEELE 927 A 0470 02 K HALDUA IIIO A 093% 01 K	AWAIHAU OLOA	2 22 06	159 22	350 163 253	6A 7A	c	LIMUE PLANTATION MC BRYDE SUG CO LTD LIMUE PLIN CO LIO	MAHANA 694 MALAUEA 676 WATAKEAKUA 685 A	5704 0 6012 0 9021 0	1 LAHAINA 1 LAHAINA 1 LAHAINA	1	20 53 20 46 20 47	156 55 156 55 156 52	1430 1135 2040		MO MT	c	DOLE COMPANY DOLE COMPANY
HALL TUNNEL 1051 1170 01 K HURIPO 945 2161 03 W	THUE	1 22 07 2 21 58 1 22 05 3 21 59	159 26 159 28 159 41	1218 800	8A 8A		GROVE FARM CO LTD LIHUE RLTN CO LTD KEKAMA SUGAR CO LTD	ISLAND OF HAU!	0175 0		2	20 37	156 20 156 38	2060		VAR		ULUPALAKUA PANCH
ILITELINA INTAKE 1050 2222 02 L INTAKE WAINIHA PC 1 86A 2227 01 H KALIMIWAL RES 1131 A 2974 01 H	ANALE1	2 22 02 1 22 09 1 27 11	159 28 159 3A 159 26	1070 690 400	7A W1- 7A	1	LIHUE PLIN CO LTO MC BRYDE SUG CO LTD KILAUEA SUG PLIN CO	FIELD 46 474  MAELAAU 477  HALEAKALA B E S 434  HALEAKALA RANCH 432	0790 0	4 LAMAINA 4 LAMAINA 1 MAKAWAO	4	20 59 20 57 20 51 20 50	156 36	1050 2980 2100		7A	C S	MAUL PINEAPPLE CO. MAUL PINEAPPLE COMPANY U OF MAWALL EXP STA
KANALOHULUHULU 1075 3099 03 W KANIHA RISERVOER 1092 A 3104 01 K KANALOHULUS 1104 A 3159 01 K	A I ME A A WA I HOU A WA I HAU	3 22 08	159 40	3600 800 175	7A 8A 7A 7A	c	KANALOHULUHULU R. 5. LIHUE PLANTATION LIHUE PLTN CO LTD LIHUE PLTN CO LTO	HALEAKALA RS 338 HALEAKALA SUMMIT 338.4 HALEAKALA SUMMIT 338.4	1004 0	1 MAKAWAO 2 MAKAWAO 2 MAKAWAO 2 MAKAWAO	2	20 46 20 43 20 55	156 19 156 15 156 16 156 17	1850 7030 9960 690	8	6A 8A	C	HALEAKALA RANCH CO HALEAKALA NAT PAPK U OF MICM MT HKALA 085# PMIL SCOTT
C(ALIA 11) A 3982 01 K KEKAHA 764 4272 03 W KILAUEA 11) 4 4561 01 H KILAUEA FI LD 17 11\5 4 4566 01 H	AIMEA	1 22 05 1 22 06 3 21 58 1 22 13 1 22 11	159 19 159 43 159 25 159 24	9 317 415	7 A 8 A 6 A 7 A	c	XEKAMA SUGAR CO LTD KILAUEA SUG PLTN CO KILAUEA SUG PLTN CO	HALIIMAILE 423 HAMAKUAPOKO 485	1075 0	1 MAKAWAO 1 MAKAWAO	1	20 52	156 21 156 21	1070 320		5A 5A		MAU1 PINEAPPLE CO. HAWAIIAN COM + SUG CO
KILAUEA POINT 1133 4568 01 H	ANALE I AIMEA	1 22 14	159 24 159 41	180 2150	84 84	c	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO LTO	HANA 354 HANA AIRPORT 355 HANAHULI 281 HOLIJA CARIN 259.5	1122 0 1125 0 1148 0	1 HANA 1 HANA 2 HAKAWAO	1 1 2	20 45 20 48 20 41 20 45	156 01	120 61 325 6930	114	8 A 11 A 7 A MO	C	MARRY HASEGAWA MAWAIIAN AIPLINES KOALI PANCH MAIFAKALA NATI PARK RGE
FOLT 1 33 4735 03 M KOLTA 916 A 4742 02 K KOLTA MA KA 994 A 4750 02 K KOLTA M	OLOA	3 22 04 2 21 55 2 21 58 1 22 11	159 46 159 28 159 29	36 240 640 737	7A 8A 7A 7A		GROVE FARM CO LTD GROVE FARM CO LTD KILAUFA SUG PLIN CO	HONOKOHAU 480 A HONOKOHUA 493 A HONOKUA FLD 49 494 A	1882 0 1887 0 1914 0	4 LAHAINA 4 LAHAINA 4 LAHAINA	4 4 4	20 58 21 00 21 01	156 36 156 39 156 38	870 135 125		MO 6A	9	MAUL PINEAPPLE CO MAUL PINEAPPLE CO MAUL PINEAPPLE CO
EJE JULA 935 A 4950 02 K LIHJE VARIETY STA 5560 02 L LIHJE I 2 A 5575 02 L	OLOA IHUE IHUE	2 21 54 2 22 01 2 21 59	159 30 159 23 159 22	100 375 207	7A 7A	c	HAWAIIAN SUGAR PL ASSN	HONOMANU GULCH 341 A TAO NEEDLE 387.2 KAANAPALI AIRPORT	1935 0 2208 0 2307 0	1 HAKAWAO 3 WAILUKU 4 LAHAINA	1 3	20 47 20 53 20 56	156 14 156 33 156 42	6280 1100 8	8.4	MO 8A	C	MALEAKALA RANCH CO STATE DIVISION OF PARK! AMEAC PROPERTYS
HARAMUENA POINT 941 5785 02 K	OLOA	2 21 59 2 21 52 3 21 55			HID MID 6	SAC J	U S COAST GUARO OLOKELE SUGAR CO	KAHAKULOA MAUKA 402.3 KAHOMA INTAKE 374 A KAHULUI WB AP 398 R KAILIILI 436 A	2552 0	3 WAILUKU 4 LAMAINA 3 WAILUKU 1 MAKAWAO	4	20 59 20 54 20 54 20 51	156 33 156 38 156 26 156 16	650 2000 48	нір	WI MID	C J	EDWARD CHANG PIONEER MILL CO LTO U 5 WEATMER BUREAU
MARA 1 265 A 5864 03 W MARA 1 26 6087 03 W M • W I I 6097 02 K M • M I JPR CR 55 1083 6433 01 W	OLOA ATMEA	3 22 02 2 21 55 3 22 07	159 46 159 28 159 36	300 3500	9A 9A	c	OLOKELE SUGAR CO KEKAHA SUGAR CO LTD GROVE FAPH COMPANY U S GEO SURVEY LIHUE PLANTATION CO.	KAILIILI 436 A KAILUA 446 KAUAULA INTAKE 375 A KAUPO RANCH HOUSE 259	2679 0	1 MAKAWAO 4 LAHATNA	1	20 51 20 54 20 53 20 39	156 13	2520 700 1585 1020	7 A	MO 7A W I		E MAUI IRR CO LTD
MULDAR TIAN A 652 % OI K MUUNT MAIALLALE 1047 6565 02 M NI PIDGE 1035 6850 03 M NI WALLUR DITCH [05] A 6888 02 L	ATHEA	1 22 11 2 22 04 3 22 02 2 22 04	159 20 159 30 159 44 159 28	330 5148 1250 1110	7A 6A 6A 7A	S	U. 5. GEO. SURVEY KEKAHA SURAR CO LTD LIMUE PLIN CO LTD	KEAHUA 410	3910 0	MAKAWAO 1 HANA 2 MAKAWAO	3	20 52	156 23 156 10 156 27	480 980	BA	5A MO 8A		KAUPO RANCH MAWAIIAN COM + SUG CO E MAUI IRR CO LTD A. L. CORELL
N WAILUA RIVER 1055 6893 01 L	THUE ANALET	2 22 04	159 26	101	6A	5	MC BRYDE SUG CO LTD	KIHEL 311 KIMAMULU 258	4489 0 4634 0	3 WAILUKU	3	20 47 20 39 20 54	156 27 156 04	90 260 5788		7A 7A	c	HAWAIIAN COM + SUG CO KIPAHULU CATTLE COMPANY, HAUI PINEAPPLE CO
RPINCEVILLE RANCH 1117 8165 01 H RUEHU 51 1040 8209 03 W PUHI 1013 4 8217 02 L RESERVOIR 6 IC 4 4 8573 02 L	AIMEA 1HUE	1 22 13 3 22 01 2 21 38 2 21 57	159 29 159 42 159 24	295 1660 329 420	7A 7A 8A 8A	1	PRINCEVILLE RANCH KEYAHA SUGAR CO LTD GROVE FARM CO LTD GROVE FARM CO LTD	KULA HEIGHTS 323.2 KULA SANATORIUM 267	5003 0 5006 0	2 MAKAWAO 2 MAKAWAO 4 LAHAINA	2 2	20 47 20 42 20 53	156 19 156 22 156 41	2520 3004	7A 7A	6 A 7 A 7 A	c	KENNETH WILLEY KULA SANATORIUM PLONEER MILL COLITO
STABLE CAMP [055.] 8694 02 L #AHIAWA 03. A 894] 02 KI #AHIAWA MININTAIN 990 A 8949 02 KI	1HUE DLOA OLOA	2 22 04 2 21 54 2 21 58 2 22 01	159 27 159 27 159 34 159 31 159 27	215 2100	7.A MO	1	LIHUE PLANTATION CO. MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD	LAUNIUPOKO INTAKE 376 A	5404 0	4 LAMAINA 9 LAMAINA 1 MAKAWAO 4 LAMAINA	- 2	20 51	156 37 156 39 156 15 156 40	1280 220 1240		7A MO 7A		PIONEER MILL CO LTD PIONEER MILL CO LTD E MAU1 1RR CO LTD PIONEER MILL CO LTD
#AIAMI C. #IR 1054 8958 02 L #AIAMI 95PEN 105Z 8966 02 L #AIAWA 943 9253 03 W	ATHEA	3 21 59	159 28	565 780	6A 6A 8A		LIHUE PLTN CO LTD LIHUE PLTN CO LTD KEKAMA SUGAR CO LTD	MOKUPEA 475	6521 0	4 LAHAINA 4 LAHAINA 1 HAKAWAO	4	20 59 21 02 20 48	156 37 156 36	715 1290 340		VAR		MAU1 PINEAPPLE CO MAU1 PINEAPPLE COMPANY
##1UUR KAI 1 86	ATHEA	2 22 02 3 21 57 2 21 54	159 21	50 20 210	7A 8A 6A		LINUE PLANTATION WAIMER SUG MILL CO MC BRYDE SUG CO LTD	OLINDA 332 OLOWALU 296 OLOWALU GULCM 377 PAAKEA 350	7059 0	4 LAHAINA 4 LAHAINA	4	20 48 20 49 20 51 20 49	156 17 156 38 156 36 156 07	4127 7 800 1260		VAR 7P MO		MAU1 CO WATER DEPT PIONEER MILL CO. PIONEER HILL CO LTD E MAUI 1RR CO LTD
15LANO OF 3AHU AIEA FIELO 625 761 A 0111 03 E	WA	3 21 25	157 57	455	7 A		WATAHOLE WIR CO LID	PAIA 406 PANILEIHULU 259.2 PAUWELA 490	7566 0 7674 0 7857 0	1 WAILUKU 2 MANA 1 MAKAWAO	2 1	20 55 20 41 20 55	156 23 156 08 156 19	170 3570 485		6A 6A WI 7A		MAWAIIAN COM + 5UG CO KAUPO RANCH CO. HASEROT PINEAPPLE CO.
BERETANIA PUMPING STA 0211 02 H CAMP 84 807 A 0300 03 E HURCH COLLEGE LAIE 0340 01 K	ONOLULU WA OOLAUPOKO	2 21 19 3 21 25 1 21 39	157 51 158 04 157 56	20 680 20	7 A 9 A 6 A 5 P		BOARO OF WIR SUPPLY DEL MONTE CORPORATION BIOLOGICAL SCIENCE DEPT	POHAKEA BRIDGE 307.2 POLIPOLI SPPINGS 267.2 PUOHOKAMOA 2 343		3 WATLUKU 2 MAKAWAO 1 HANA	2	20 41	156 31 156 20	167 6150 2980		VAR		WALLUKU SUGAR CO STATE DIV OF FORESTRY
OCONUT I LAND 840-1 0350 01 K DOWSETT HIGHLOS 780-8 0438 02 H HAPLANTATION 741 0507 03 E HALAWA SHAFT 771-2 0964 02 M	ONOLULU	1 21 26 21 21 21 21 21 23 21 33	157 47 157 50 158 02 157 54	13 565 42 170	9.1 74	1	U OF H MARINE LAB J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY	PUU FUKUI MAKA1 472 7 PUUNENE 376 PUU PAKI 352	8444 0- 8543 0 8553 0	4 LAHAINA 3 WAILUKU 1 HANA	3	20 50 20 55 20 53 20 46	156 27	2500 60 2160		7A	5	E MAUI 1RR CO LTD PIONEEP MILL CO LTD MAWAIIAN COM + SUG CO EAST MAUI IRRIGATION CO
HELEMANO INTAKE RB1 A 1384 05 W HOFULOA 725-2 A 1540 07 E	**	21 24	158 06	2220	VAR	1	WAIALUA SUGAR CO, INC. H. V. VON HOLT	SPRECKELSVILLE 400.2 THIN GATES 261.3	8688 0 874 0 874 0 875 0	3 WAILUKU	3	20 54 20 46 20 48	156 25 156 23 156 15	85 1310 5230		VAR MO		KAONOULU RANCH HALEAKALA RANCH CO
#HONOLULU WBFC 703 R 1919 02 H #HONOLULU SUBSTA 704 1924 02 H H P A FEP STA 707 2146 02 H	ONOLULU	3 21 19 2 21 20 2 21 19 2 21 18	158 00 157 55 157 52 157 50	12	9A 9 41 M1D 41 M1D 8A	, J	U 5 COAST + GEODETIC U S WEATHER BUREAU ESSA-WEATHER BUREAU H S P A EXP STATION	UKUMEHAME 301 ULUPALAKUA RANCH 250 WAHIKULI 364	876 0	4 LAHAINA 2 MAKAWAO 4 LAHAINA	2	20 48 20 39	156 35 156 24	1900 580		7A 8A	4	RIONEER MILL CO LTD ULUPALAKUA RCH CO LTD PIONEEP MILL CO LTD
KAMLAKET 724.6 2269 02 H KAMANA 883 A 2462 01 K KAMUKU 912 A 2573 01 K	ONOLULU OOLAULOA OOLAULOA	2 21 18 1 21 31 1 21 41 1 21 24	157 43 157 54 157 57 157 45	800 25 10	81 8A	6	MRS. HILLIE ZAPATA WAIAHOLE WTR CO LTD KAHUKU PLTN CO KAILUA FIRE STATION	WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449		3 WAILUKU 4 WAILUKU 1 HANA		20 54 20 55 20 57 20 52		320 300 1200		6A 6A WM		WAILUKU SUGAR CO WAILUKU SUGAR CO F MAUI IRR CO LTD MAUI COUNTY WIR DEPT
KALIHI RES 'ITE 777 2960 02 H	ONCLAUPOKO ONCLULU OCLAUROKO	1 21 24 2 21 23 1 21 19	157 50	910 1380	6A   M1D	-	HAWATI NATIONAL GUARD	WAIKAPU 390 WAILUA IKI 348 WAILUKU 392	9376 0 9460 0 9484 0	3 WATEUKU 1 HANA 3 WATEUKU	1	20 49 20 52 20 48 20 54	156 14 156 31 156 09 156 30	4320 470 2630 200		6A 8A		EAST MAUL IRRIGATION CO
KANEOHE MAUKA 781 3113 01 K KANEOHE RANCH 83H A 3123 01 K KAPAFA MAKAI 90%-1 3220 01 K	OOLAUPOKO OOLAULOA	1 21 25 1 21 23 1 21 36	157 49 157 47 157 54	225 365 10	7A 7A 8A	1	STATE HOSPITAL KANEOHE RANCH CO GEORGE H. SWIFT	WATOPAL RANCH 256 A	9765 0	2 HANA	7	20 38	156 12	22		8A 0C		HALEAKALA RANCH CO
KAPALAMA 773 A, 3268 02 H KAWAIHAPAI 861 A, 3734 04 W KAWAI IKI INTAKE 881-2A, 3761 05 W KAWAI MAUPA 906.3 3829 02 K	ATALUA	2 21 21 5 21 35 5 21 34 1 21 40	157 52 158 11 157 59 158 00	614 20 1180 1050	7A W1		KAMEHAHEMA SCHOOLS WAIALUA SUGAR CO., INC. WAIALUA SUGAR CO. INC. HAWAII NATIONAL GUARO	AWINI 182.1 A	0190 0	5 N KONA 1 N KOMALA 1 S KOMALA	1	19 38 20 10 20 07	155 47 155 43 155 43	522 187 424		MO W I MO		GREENWELL RANCH KOHALA OITCH CO LTO KOHALA OITCH CO LTO
EEMOO CAMP R 895 A 43T8 09 M AOOLAU OAH 833 4766 09 M LUBLUALES 804 5647 04 M	ATALUA AHIAWA	5 21 33 5 21 30 6 21 26	158 05 157 58 158 08	725 1160 113	7A 8A 7A 7A		WAIALUA SUGAR CO., INC C + F OFFICER HEOG USN AMMUNITION DEP	HAINA 214 HAKALAU 142 HAIFMAUMAU 52	0840 0 0905 0	1 HAMAKUA 2 S HILO	1	20 06 19 54 19 24	155 28 155 08 155 17	460 105 3648	7.6	7 A 7 A MO	*	MONOKAA SUGAR CO PEPEEKEO SUGAR CO. HAWAII NAT PARK
LUNA, IL HOME 724.2 5A75 02 H	OGLAUPOKO	4 21 29 1 21 24 2 21 17	158 08 157 49 157 42	1500 240 40	W1	*	U S NAVY MILNOR LUH LUNALILO MOME	HAWAII VOLCNS NP HQ 54	1303 0	1 HAMAKUA 2 HAMAKUA 2 KAU 1 N KOHALA	- 2	19 56 19 46 19 26 20 14	155 24 155 28 155 16 155 50	5770 9220 3971 600	8 %	MO MO BA 7A	4	KUKATAU RANCH CO STATE DIV. OF PARKS HAWATI NAT PARK KOHALA SUGAR CO
MAKAHA FALLEY BD +1 A 5781 O4 M MAKAHA VALLEY BD +1 A 5781 O4 M MAKAHA VALLEY BD -1 A 5781 O4 M MAKAHU P(INT 724 5800 O2 H MANDA 712 6122 O2 M	A LANA E ONOL ULU	4 21 29	158 12	25 160 538	7A 8A 8A	1	CARITAL INVEST CO CAPITAL INVEST CO U.S. COAST GUARD	HILO WE AIRPORT ST R	1492 0 1557 0	2 5 HILO 4 N KONA	2	19 43 19 38 19 37	155 04 155 55	27 3220	мте	MID N	10K J	U S WEATMEP BUREAU STATE DIV OF EORESTRY VARIOUS RANCH HANDS
MANDA 712 6122 02 M MANDA 112NNEL 2 716 6130 02 M MAUMABLUI 187-1 6222 01 K MORNAL A 77 6395 02 M		2 21 19 2 21 19 2 21 20 1 21 21 2 21 21	157 48 157 48 157 46 157 56	220 650 410 20	MID 9A		MRS.JOHN H.BEAUMONT BOARD OF WTR SUPRLY EXP. STA. H.S.P.A. JOHN A ROXBURGH	HOLUAÇOA BEACH 68 A HONAUNAU 27 HONOHINA 137 HONOKANE 181.1 A	1562 0 1665 0 1701 0	4 N KONA 4 S KONA 2 N HILO 1 N KOMALA	4	19 37 19 27 19 56 20 69	155 59 155 53 155 09 155 44	14 1089 300 800		7A 7A 7A		CHARLES HUA
MOUNT KAALA 864 6553 04 # NULAMU RE' 6 781 6928 02 H NULAMU RE IRVOIR 5 7754 6933 02 H	ALANAF	4 21 31 2 21 21		4025 1048	нто	-	FEDERAL AVIATION ADM. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY	HONUAULA 71 A	2047 0 2151 0	4 N KONA 4 N KONA	4	19 51 19 40 19 42	155 09 155 53 155 52	1100 6250 8190		7A MO MO	X	KOMALA DITCH CO LTD PEPEEKFO SUGAR CO. STATE DIV OF FORESTRY STATE DIV OF FORESTRY
PALOLO VALLEY 718 7664 02 H	ATALIJA ONOLULU ONOLULU	2 21 21 5 21 34 2 21 20 2 21 21	158 02 157 46 157 48	1060 995 164	VAR 74 7A HID MID	*	BOARD OF WIR SUPPLY	KAALA IKI 12 A	2249 0	4 N KONA 3 KAU 4 N KONA	3	19 45 19 08 19 30	155 59 155 34 155 55	1960 1340 1330		6A 7A 3A		HUEMUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO.
PAUDA FLATT, TRA 7810 02 PP PEARL ITY TERCE 754.1 7930 03 E ROPHLOCK ROAD 724.4 8120 07 H PP1 WAHIAWA 820.2 A 8172 09 W RUNALUU 884 A 8310 01 K	ONOLULU AHIAWA	3 21 25 2 21 17 5 21 28 1 21 35	157 43	700	7A 8 8A 8A	E	JAMES MUMENO MRS ALFRED FRANCO. JR. PINEAPPLE RESEARCH INST	KAHIAWAI 3.4 KAINALIU 73.2 KALAPANA NO 1 67.8	2512 0 2751 0 2894 0	3 KAU 4 N KONA 2 S MILO	3 4	19 08 19 32 19 20	155 46 155 56 155 02	3700 1500 10	7%	7A VAR	F	PUSSELL P. SMITH KONA EXPERIMENT STA HAWAII VOLCANOES NAT PK
FUNCHBONE RATER 709 A 8316 02 M	ONOLULU OOLAUPOKO	2 21 19 1 21 22 2 21 20	197 51	360 488	8A 7A		NAT MEM CEMETERY REV R CULLINAN	KAMUELA 192.2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36 A	3048 0 3077 0 3078 0 3300 0	1 S KOHALA 5 S KOHALA	1	19 02 20 01 20 00 19 17	155 40 155 40 155 40 155 27	1375 2670 2665 2140	6 A 8 -	6A 8A 6A		HAWAIIAN RANCH CO PARKER RANCH HAWAIIAN AIRLINES HAWAIIAN PANCH CO. INC.
TANTAL 5 P(AK 79: 8730 02 H TANTAL 5 2 F80±5 8738 02 H 'NIV OF HAWAII 711 A 8815 07 H WARIAWA (AM 863 A 89±5 09 W	ONOLULU	2 21 20	157 50	200: 1325 7: 85	7A 8A 7A	1	ROARO OF WATER SUPPLY R. E. WHITE DEPT OF GEOSCIENCE	KAPOHO LANOING 93.5 A KAUMANA 88.1	3369 0	2 S HILO 1 HAMAKUA	2	19 30 19 41 20 05	154 52 155 09 155 39	290		VAR 6A	c	BOARD OF WATER SUPPLY SHIGEO MASUYA HONOKAA SUGAR CO
#AIAHOLE R37 A 8964 01 K #AIALAE KAHALA 715 9185 02 H #AIALUA 847 A 9195 19 #	OOLAUPOKO ONOLULU AIALUA	5 21 30 1 21 28 2 21 17 5 21 35	157 53 157 47 158 07	745 4 0 32	7A 7A 74	8	WAIALUA SUGAR CO., INC WAIAMOLE WIR CO LTD SPENCER TINKER WAIALUA SUGAR CO., INC	KAWAINUI LOWER 193 A KEAAU 92 KEAIWA CAHP 22,1 KEALAKEKUA 26,2	3872 0	2 PUNA	2	19 38 19 14 19 30	155 29	1080 280 1700 1450	8 6	8 - 8 -	c	PUNA SUGAR CO HAWAIIAN AGRI. COMPANY MISS AMY GREENWELL
#ATAMAT MAUKA 8 1 A 9236 04 W #ATAMA 816 A 9261 0 1	ALANAE	4 21 27 4 21 29 9 21 28	158 11	1575	BA W II MO		CAPITAL INVEST CO CAPITAL INVEST CO WAIAHOLE WTP CO LTD	KEANAKOLU CAMP 124.2 KEHENA 181.2	4098 0 4245 0	1 N KOMALA	1	19 55	155 21 155 45	5280 3840		#1	č	KOHALA DITCH CO LTO
#AIKI#I 717.2 9397 02 H #AILUPE RESV. 723.2 & 9495 02 H	ONOLULU	1 21 30 2 21 16 2 21 18	157 49	760 10 170	BA BA WI		HONOLULU ZOO	KIPA 89.2	4670 O	2 S HILO	3	19 44	155 38 155 09 155 47	1925		WT BA		STATE DIV OF FORFSTRY MALINA KEA SUGAR CO. KOHALA SUGAR CO
MAILUPT VLV 5/H 723.6 9500 02 H WAIMANAL 796 A 9521 01 K WAIMEA 892 A 9593 05 W WAIPAM 15 A 9758 03 E	AIALUA WA	2 21 18 1 21 21 5 21 38 3 21 23	157 45 157 44 158 04	180 60 420	8A 7A 8A	6	WAILUPE VALLEY SCHOOL ST DIV WIR + LAND DEV WAIALUA SUGAR CO. INC	KOTAWE LOWER 196 A	4685 O	N KOHALA N KOHALA N HAMAKUA	1	20 13 20 14	155 47 155 48 155 38	96 53 72	79	7A 7A W1		KOHALA SUGAR CO KOMALA SUGAR CO X. LYMAN BOND HONOKAA SUGAR CO
ETERNINA BISE 721 2980 02 H	ONOLULU	2 21 23 2 21 10	157 47	1100	міо		DAHU SUGAR CO BOARD OF WTR SUPPLY		4815 0	4 N KONA 4 N KONA 1 HAMAKUA 1 HAMAKUA	1	19 39 19 52 20 02 20 07	156 01 155 55 155 21 155 35	17 15 840 980	64	8A 6A 6A		HAWATIAN AIRLINES KONA VILLAGE RESORT HTL HAMAKUA MILL CO HONOKAA SUGAR CO
ERLA IPAPA 563 2896 01 M KAMAL MAURA 562.6 3046 01 M KAJNAKAKAI 536 A 3541 01 M ERHARIARA MAUKA 576.5 3547 01 M	OLOR & L	1 21 04	156 59 156 52 157 01	30 60 12	8A 6A	1	KALAUPAPA SETTLEMENT W. J. CARSTEN MOLOKAI RANCH LTD	KUKUIHAELE MIC 199 KUKUIHAELE MILL 206 KULANI CAMP 79 KULANI MAUKA 76	4938 0 5011 D	1 HAMAKUA 2 S HILO 5 N HILO	1 2	20 08 19 33	155 34 155 18	300 5170	8.8	6A 8A		ST DEPT OF SOCIAL SER
EAR NATATAL MALIKA 516.5 35.4 01 M EFCMELF PENS 551 N 6396 01 M KUALARUU 516 A 4778 01 M MARILERU 516 6138 01 M	OLOKAI OLOLAI	1 21 06 1 21 12 1 21 09	157 01 157 12 157 02	70 560 875	WK. 7.6	F	MOLOKAI MANCH LTD HOLOKAI GENERAL HOSPITA HOLOKAI PANCH: LTD: DEL MONTE CORPORATION	KULANI SCHOOL SITE 78 A LALAMILO FLO OFF 191.1 LANIHAU 68.2	5021 0 5260 0	5 N HILO 2 S HILO 1 S KOHALA 4 N KONA	2	19 35 19 35 20 01 19 40	155 27 155 20 155 41 155 58	8300 5735 2615 153		WI	3	U S WEATHER BUREAU ST DEPT OF SOCIAL SER STATE DEPT OF L + N RE KONA EXPERIMENT STATION
MAUMAL A 511 A A190 01 M MOLDRAL A511 A A534 01 M MOLDRAL A5 524 A534 01 M PUUDHO4+ RANCH 542+1 R549 01 M	OLOKA1 OLOKA1	1 21 08		1075 450 700	8A 9A 8A 8A 6A	-	H S P A LIBBY MCNEILL + LIBBY ALOMA AIRLINES PUUOHOKU PANCH	LAVA TREE PARK 66.1 MANUKA 2 MAUNA KEA BEACH 98 MAUNA LOA SLOPE 0BS	5460 0 6134 0 6180 0	2 PUNA	2	19 29 19 07 20 01 19 32	154 54	1760 103	9.6	8A 8A	V.	STATE DIV. OF PARKS STATE DIVISION OF PARK MAUNA KEA BEACH HOTEL U.S. WEATHER BUREAU
WAIRINU 54 A 9404 OI M	OLOKA1		156 55	3550	TW	8	MOLOKAI RANCH	MIDDLE HOLUALOA 68.1 MIDDLE PEN 147.1	6268 0 6270 0	N KONA 1 N KOHALA	4	19 32 19 37 20 06	155 58	11146 475 1380	- 17	8A VAR		U S WEATHER BUREAU KONA EXPEPIMENT STA KAHUA RANCH

CONTINUED	NO.	NO		GE ‡	TITUDE	TUDE	ATION		SERV TME				NO.	NOI		AGE 1	TITUDE	TUDE	ATION		BSER TIME TAI		(ID	OBSERVER
STATION	INDEX	DIVISION	DISTRICT	DRAINA	LATIT	LONGITUDE	ELEVA'	TEMP.		EVAP.	OBSERVER	STATION	INDEX	DIVISI	DISTRICT	DRAIN	LATIT	LONGITUDE	ELEVA	TEMP	PRECIP.	EVAP.	SPECIAL AZ ROTEL	OBSERVER
MOUNTAIN VIEW 9! NAALEMJ 14 NAPODPOO 28 NIOLI 179 OKKALA 223 OPINIMALE 2 24-1 OPINIMALE 2 24-1 OPINIMALE 2 24-1 PARAJMAU 21 PARAJMAU 21 PARAJMAU 21 PARAJMAU 21 PARAJMAU 144-1 PARAJMAU 14	A 6588 A 6697 A 6806 7131 7166 7185 7204 7312 7421 7457 A 7671 7711 7721 8 8051	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	PUNA KAU S KONA PUNA N KOHALA N HILO S KONA	2 3 4 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	19 33 19 04 19 28 19 19 20 14 20 01 19 16 20 05 20 03 19 12 19 30 19 22 19 47 19 47 19 44 19 44	155 28	600 1530 673 395 1400 75 430 1270 670 670 5000 200 1270 100 1730 6511	6A 8 7 7 4 8 A	7A VAR 6A	c	HAWAIIAN RANCH CO PUNA SUGAR COMERCO PUNA SUGAR COMERCO KONE EXPEPIHENT STA HAWAII VOLCANDES NAT PA FORMALA SUCAR COMERCO BOADD OF MATER SUPPLY PANHAU SUGAR COM HAWAIIAN AND COMPANIAN HAWAIIAN AND COMPANIAN HAWAIIAN AND COMPANIAN HAWAIIAN AND SUGAR COMPANIAN HAWAIIAN AND SUGAR COMPANIAN HAWAIIAN AND SUGAR COMPANIAN HAWAIIAN KEA SUGAR COMPANIAN HAWAI	PUU LAAU 102.1 PUU LEHVA. 73 PUU MALI 1137 PUU MALI 1137 PUU OA 127 PUU OO 82 PUU OO 82 PUU OO 82 PUU WAAWAA 94.1 SAOOLE ROAD 1 89 S POINT TRACKING 5TA UNICA 118 UPGUL POINT USGG 159-2 WAIKAR SCO 85,2 WAIKANONGULA 178.6	 3452 3460 3515 3548 3550 3555 3555 3675 3675 3780 3830	05 04 01 01 02 05 02 03 03			19 50 19 34 19 55 20 12 19 44 19 47 2 19 42 3 18 57 18 57 1 19 59 2 20 15	155 24 155 36 155 36 155 49 155 26 155 23 155 51 155 41 155 41 155 42 155 47	775(744/8886696180000000000000000000000000000000	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	MC MC MC MC MC MC MC MC MC MC MC MC MC M	000000000000000000000000000000000000000		KUPATAN PANCH CO STATE DIV OF FISH-GAME OREEWELL BANCH KUPATAN PANCH CO KOMALA DITOH CO LTO ONALA DITOH CO LTO DILLINGHAM RANCH INC BOARD OF WITE SUPPLY HUTCHISSON SUGAR COP KUPATAN PANCH CO U S COAST GUARD WANDAR PANCH CO

T DRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO DATRA-ISLAND DIVISIONS) LANAI: 1-(NO DATRA-ISLAND DIVISIONS) MAU: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHEASTERN 2-SEASTERN 3-CENTRAL

### REFERENCE NOTES

Additional information regarding the climate of Hawall may be obtained by writing to the Environmental Science Services Administration Regional Climatologiet, P. O. Hom 3650, Hosolulu, Hawall, or to many Westber Bureau Office near you Additional precipitation data are continued in "BOURLP PRECIPITATION DATA HAWAIT."

DIMENSIONAL UNITS: Unless otherwise indicated, disensional units used in this bulletin are: Temperature in "F., precipitation and evaporation in lockes, and wind sevement in aller. In "Supplemental Data" table directions entered in figures are tens of degreee Resultant wind in the vactor sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME Data in the "Woothly Extrames"; "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station index. The Station index shows observation time in local standard time.

EVAPORATION Is measured in the etandard weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. War and Win in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-bours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960

STATION NAMES: Hawall etate key numbers are included following station names in the several tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin.

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication

- IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
  - No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station lndex
    - No record in the "Climatological Data" table and the "Dally Temperature" table is indicated by no entry
  - + And also on an earlier date or dates
  - ++ Bigbest observed one minute windspeed. This estation is not equipped with an instrument to measure factost mile data
  - Amount included in following measurement, time distribution unknown.
  - A The letter "A" above following station mass in "Climatological Data" table, "Daily Precipitation" table, and "Station Index", Indicates amount carried in the "Total" column is for the period from last essaurement of a speceding anoth through least seasurement or the current south. See "Daily Precipitation" table of this and previous bulletine for dates of measurement of a south are credited to the last day of the preceding month.
  - H Adjusted to a full month.
  - J "Supplemental Data" table,
  - W One or more days of record missing, if average value is satered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record
  - R Amounts from recording gags
  - T Trace, an amount too small to measure
  - V includes total for prsvious month.
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

  AR Deservation made after rain.
  - in Special Column of Station lands: indicates Secording Rate Gage Station. Hearly practipation values are processed for special purposes, and are published to later in the 'Sportly Perceptation Bars' builetin. If daily amounts are published in "Climatological Dats" builetin they see from a separate non-recording gage, except where indicated by reference 'A'. Such amounts say differ from amounts published from the recording gage in the "Sourtly Precipitation Bats" builetin.
  - MO Gage read once monthly; usually on the last day
  - OC Gage readings at periods varying from a few weeke to several months
  - S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December Issue, or as delayed data in the June Legue of this publication.
  - SS Observation time is near sunset
- VAR Obesrvation time is variable
- Wf Gage read eeekly or irrsgularly only.
- WM Gage read eeekly and last day of month
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

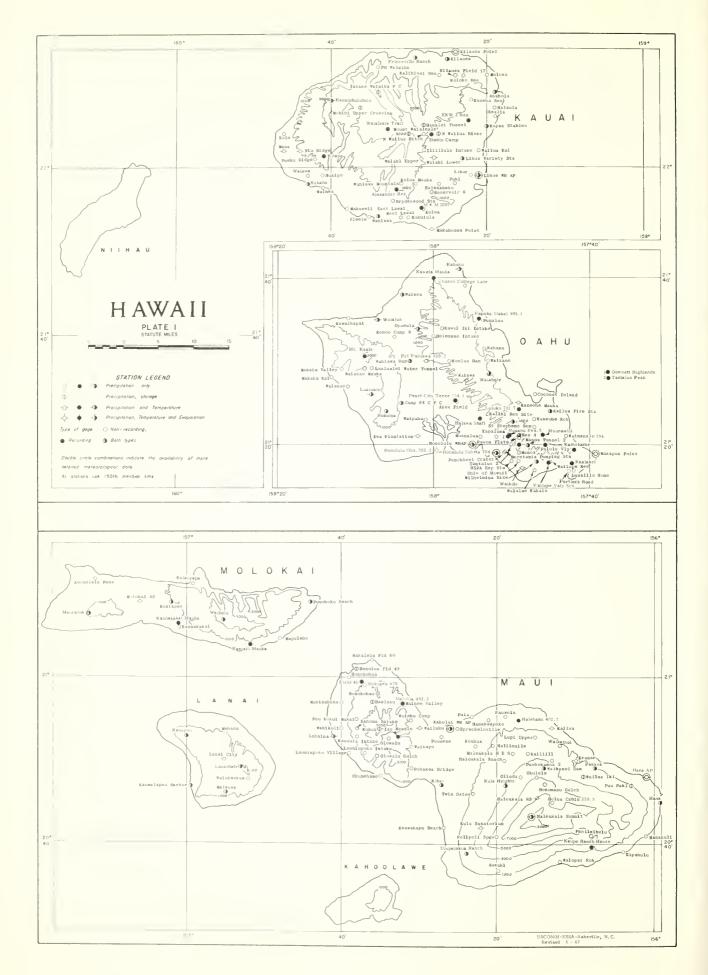
Stations appearing in the tables eith no data eers either missing or received too lats to be included in this lesue,

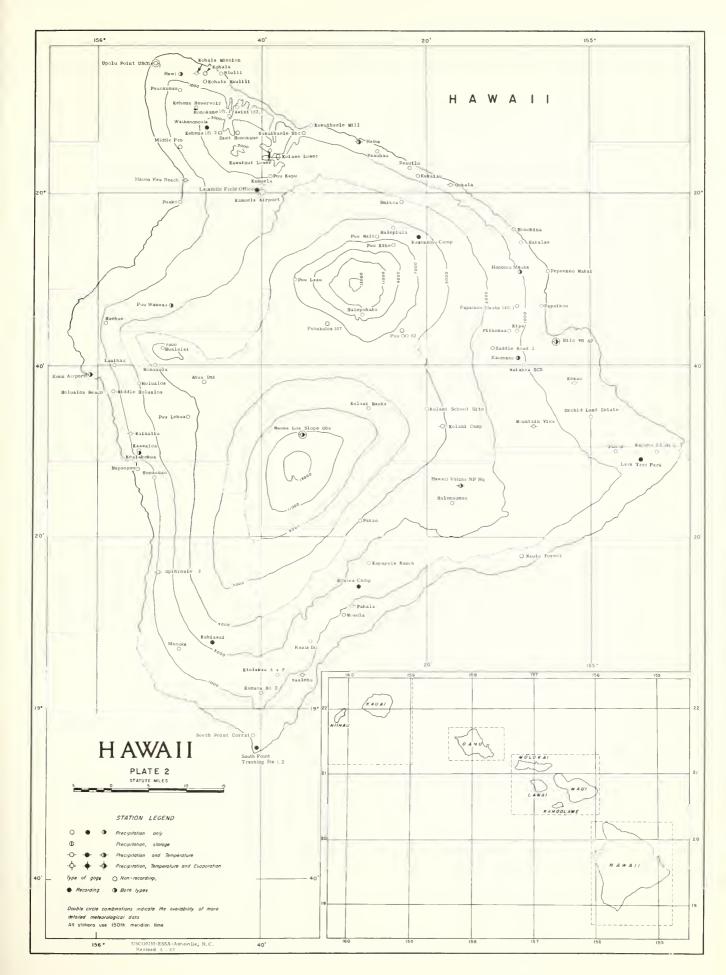
General seather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SURMARY, and STORM DATA, all of shich may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20462.

Information concerning the bistory of changes in locations, elevations, sxpoeure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Menther Eureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superlandment of Documents at the address shown above.

Subscription Price: 20 cents per copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and mone orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents, Government Printing Diffice, Washington, D. C. 20402.

DSCOMM-ESSA-ASHEVILLE-12/31/68-890









U.S. DEPARTMENT OF COMMERCE

MAURICE H STANS, Services

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

ENVIRONMENTAL DATA SERVICE

O. 1969 CLIMATOLOGICAL DATA

HAWAII OCTOBER 1968 Volume 64 No. 10

# CLIMATOLOGICAL DATA

					Ter	nper	ature							1		TEUT	-	Precir	pitation					
						nper					1	lo. of	Days						-	w. Sleet		No	o. of	Days
Station		. 6	- a		To Table					Days	M	ax.	M	n.		e rmal	Day			pth nd		More	More	More
		Average	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	Degree I	90° or	32° or Below	32" or Below	0° or Below	Total	Departure From Normal	Greatest		Total	Max. Depth on Ground	Date	.10 or M	.50 or M	1.00 or N
* * * ISLAND DF KAUAI																								
ANAHOLA 1111 KANALDHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	Δ Δ Δ	73.5 85.8	54.9 72.8	64.2 79.3		80 91	7		24		0	0	0	0	10.98 9.89 11.01 13.79 11.37	6.72	5.40 6.05 6.33 4.07 4.46	2 2 17	.0	0		5	3 5 3	
KOLDA 936 LIHUE W8 AP 1020.1 MANA 1026 N WALLUA OITCH 1051 PH WAINIHA 1115	A R A	82.0 87.3	70.3 69.7	76.2 78.5	7 1.5	85 91	4+ 5	63 64	26 20		0 2	0	0	0	10.63 9.93 6.20 14.29 8.74	5.32 5.90 4.15	5.15 4.34 3.55 4.30 3.43	2 2	.0 .0 .0	(		9 6	3. 3.	
PUEHU RIDGE 1040 WAHIAWA 930 WAIAHI LDWER 1054 WAIMEA 947	Δ	83.9	64,3	74.1		88	11+	58	26+		0	0	0	0	8.60 8.30 14.85 8.50	5.28 6.59	5.31 4.90 4.15 5.38	2 2	.0	(		9 14 6		2 2 5 3
15LANO				74.5											10.51				.0					
ISLAND OF DAHU																								
HDNDLULU D8SERV 702.2 HDNDLULU W8FC 703 KAHUKU 912 KANEDHE MAUKA 781 KDDLAU OAM 833	R A	88.2 86.1M 84.7	73.0 69.0M 72.7	80.6 77.6M 78.7	2.4 .3 2.6	92 89 90	14 4 11	65	25 28+ 24		10	0	000	000	3.40 2.13 4.49 6.69 12.65	.29 .33 .94 4.85	2.05 1.06 2.50 2.60 3.80	1 2 16	.0	0		5 5 8 16	1 1 2 2 8	1 1 2 4
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALDLO VALLEY 718	А	85.6 83.9 84.5	71.9 74.2 66.5	78.8 79.1 75.5	3.1	90 89 89	14+3	71	27+ 4+ 27		0		0	000	3.36 1.07 5.80 4.56 5.60	- 1.93 - 3.13 29 - 5.23	1.23 .77 1.22 2.95 1.20	1 2	.0	0		5 3 13	3 1 4 1 3	
PR1 WAHIAWA 820.2 PUNALUU 884 WAHIAWA DAM 863 WAIAHDLE 837 WAIALUA 847	A A A A	86.5	67.2	76.9	1.9		23		26+		2	0	0	0	8.78 5.65 5.90 10.71 3.25	- 1.37 .56	3.70 2.23 3.05 2.68 2.49	2 2 2	.0	0		4	3	4
WAIKIKI 717.2 WAIPAHU 750	Δ	88.0M	71.8M	79.9M		90	15+	65	27+		4	0	0	0	2.01	2.84	.65		.0	0		5 7	2 2	0
15LANO	Α			78.3											5.18	2.04	2.63	2	.0				6	1
* * *																								
ISLAND OF MOLDKA1  KUALAPUU 534 MAPULEHU 542 MAUNALDA 511 MOLDKA1 AP 524	Δ	84.9	71.5	78.2		87	15+	65	25		0	0	0	0	2.84 3.46 4.30 3.86	.42 .05 1.93	2.10 .79 1.98 3.04	15	.0	0		3 10 7 4	1 2 2 1	
ISLANO		0447	11.0	78.2			1		-				Ů		3,62		3.01		.0				Î	•
* * * ISLANO OF LANAI																								
LANAI CITY 672	Α	80.0	65.5	72.8	2.1	85	11	60	25		0	0	0	0	4.48	1.53	1.42	4	.0	o		6	4	1
ISLANO				72.8											4.48				.0					
* * * ISLAND OF MAUI																								
HALEAKALA 8 E \$ 434 HALEAKALA RS 338 HANA AIRPDRT 355 HONDKOHUA 493 KAANAPALI AIRPDRT	A	65.3 85.9	47.6 69.7 71.5	56.5 77.8 79.1		88	14 16+	65	24 24 25		0 0	0 0	0 0	0 0	3.80 5.87 4.00 3.32	49	1.48 2.82 .74 2.16	22 16	.00	0000		5 5 11	3 5 2 1 0	0
KAHULUI W8 AP 398 KAILUA 446 KEANAE 346	R A	89.8	68.2	79.0 75.0	1.7	92	11+	61	24 26		20	0	00	000	.80 5.28 5.70	07 - 4.04 - 9.65	.40	2 22	.0	0		11	0 4	0
KIPAHULU 258 KULA SANATORIUM 267		74.5	58.7	66.6	. 4	79	12	54	27+		0	0	0	0	7.59 4.93	2.67	2.45		.0	0		12	6	2
LAHAINA 361 PAIA 406 WAILUKU 392		88.1	70.9	79.5 79.8	2.8	92 92	17+		25 26		5	0	0	0	1.52 1.68 1.14	52 48 72	.51 .51	2	.0	0		4 4 2	1 1 1	0 0
ISLANO				74.2											3.56				.0			1		
* * * 1\$LAND OF HAWA11																						1		
HAINA 214 HAWAII VOLCNS NP HQ 54 HILD W8 AIRPORT 87 HUEHUE 92.1 KAINALIU 73.2	R A	85.5 72.2 85.6	66.7 55.6 68.6	76.1 63.9 77.1	2 · 1 1 · 0 2 · 0	88	2 16 1	51 65	25 26 24 26		000	ı	0	0000	1.49 6.47 5.97 4.33 3.98	- 3.76 41 - 4.83 .74 - 2.22	.50 3.22 1.12	11	.00.00	0000		6 10 11	1 2 4	0 1 2
KAMUELA AIRPORT 191		78.2M		65.1M		83			10+		0	0	0	0	1.54		.45		.0	0		4	0	0

See Reference Notes Following Station Index SPECIAL WEATHER SUMMARY ON PAGE 125

### CLIMATOLOGICAL DATA

					Ter	mper	ature											Precip	oitation					
											N	lo. of	Day	g				Ĭ	Snov	w. Sleet		No	o. of 1	Day
Station		_ 8	В		rmal						Ma	ax.	М	in.		real	Day			Depth		ore	ore	More
		Åverage Maximum	Åverage Minimum	Average	Departure From Norma	Highest	Date	Lowest	Date		90° or Above	32" or Below	32° or Below	0° or Below	Total	Departure From Normal	Greatest	Date	Total	Max. De on Grou	Date	.10 or More	.50 or More	1.00 or A
EAAU 92 EALAKEKUA 26.2 ONA AIRPORT 68.3 UKUIHAELE HIC 199		86.5 81.9 86.3M	66.9 66.0 67.6M	76.7 74.0 77.0M	2.3	89 86 88	16+ 12 2	64 63 66	25+ 26 7+		000	0	0 0 0	0	5.62 3.19 3.21 1.60	- 6.76 - 4.34	1.68 .86 2.50	13	.0	0000		10 8 3 5	1 1 0	2
ULANI CAMP 79		68.9M	48.7M	58.8M		75	12	40	27+	i	0	0	0	0	7.40	7.54	1.48		.0	0		9	5	:
AUNA KEA 8EACH 98 AHALA 21		88.6	72.5 65.4	80.6 74.1	. 9	96 85	22÷ 22÷	67 62	26 23		7	0	0		.65 11.15	7.14	.41 4.78		.0	0		2	0	1
OHAKULOA 107 UAKO 95.1 UU WAAWAA 94.1	Δ						,								.73 .45 9.07	6.19	.18 4.30	4	.0	0		3	0	0
MIKOA 118 AIAKEA SCO 88.2	_				ļ										2.37	- 2.58	1.11	3	.0	0		4	2 5	1
ISLANO				72.4								ĺ			4.37				.0	Ĭ		**		

# TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 96° ON 22+ AT MAUNA KEA BEACH 98, HAWAII LOWEST TEMPERATURE: 33° ON 25+ AT MAUNA LOA SLOPE OBS, HAWAII GREATEST TOTAL PRECIPITATION: 19.96 INCHES AT WAIAHI UPPER 1052, KAUAI LEAST TOTAL PRECIPITATION: .32 INCH AT KONA VILLAGE 93.8, HAWAII GREATEST ONE-DAY PRECIPITATION: 6.70 INCHES ON THE 2D AT KANEHA RESERVOIR 1092, KAUAI

See Reference Notes Following Station Index

### HAWAII - OCTOBER 1968

### SPECIAL WEATHER SUMMARY

The month was characterized by a number of important weather situations: a destructive flash flood, a damaging volcanic haze, numerous thunderstorms, light winds and the absence of the trades, the persistence of high temperatures on all islands and of dry weather in the northeast sections of Hawaii Island.

The most destructive weather event of the month was a severe flash flood triggered by intense thunderstorms over the upper slopes of Hualalai Mountain (elevation 8271 feet). Torrents of water carrying boulders, mud, trees, and other debris cascaded down the mountain sides and through the Holualoa-Kamalumalu area of North Kona on the Island of Hawaii shortly before 3 p.m. on the 3d, ripping huge chunks of pavement and shoulder from Hualalai and Holualoa Roads, Kuakini Highway, and Alii Drive, and destroying bridges, culverts, and a pipeline. About 40 homes, business establishments, 4 autos, and personal coffee plantings were seriously damaged. Floodwaters ruined expensive machinery at a factory in Kona and washed through a hotel lobby and swimming pool, depositing mud and debris. U. S. Army Corps of Engineers damage estimates totalled \$774,000, of which approximately \$218,600 were for public property, \$220,400 for private property, and about \$310,000 to irrigation facilities, fences, roads, and pastures.

Kona Airport, about 7 miles distant from the presumed storm center, registered 1.70 inches of rain between 3 and 4 p.m., while 24-hour totals ran up to 6.6 inches at a gage at the 1200-foot elevation near Holualoa. Flash floods hit the same area again the very next day, on the afternoon of the 4th, but did little additional damage.

Heavy rains also fell during the 1st and 2d on Kauai and on northern and western Oahu, as warm moist air converged ahead of a stationary cold front west of Kauai. Several gages on Kauai received their greatest 24-hour October rainfall of record, but little damage appears to have been done. Maximum 24-hour amounts ranged from 3 to 6 inches on Kauai and exceeded 3 inches on Oahu.

The most curious occurrence of the month, and one not entirely meteorological, was the envelopment of the islands in volcanic haze from an eruption of Kilauea Volcano's upper Puna rift zone on Hawaii Island. Southerly winds swept the volcanic effluent northward over the island chain, reducing visibilities to as low as 2 miles at Honolulu Airport on the morning of the 10th. Sulfur dioxide fumes did an estimated \$118,000 worth of damage to leafy vegetable crops in the Volcano Farm Lots' area. A change in wind

direction dissipated the haze rather rapidly on the following day.

Light winds and intense local heating resulted in continued warm weather and a rash of thunderstorms on all islands. Honolulu Airport recorded 5 thunderstorm days, as against an average of only 1 for October. Lightning struck 2 powerlines near Waipahu at 1:50 p.m. on the 8th, interrupting electric power to large portions of Oahu, including parts of Honolulu, for a short period. At about 3 p.m. on the 16th, lightning struck powerlines in a section of Aiea, Oahu.

Temperatures were above normal at all Weather Bureau airport stations except Lihue, whose above-normal rainfall kept daytime temperatures down. Downtown Honolulu's (Honolulu Substation) mean of 80.1° was the highest in any October since records began there in 1904 and the third highest of record in any month. Rainfall over the State was reversed from the normal trade wind patterns, with the normally drier leeward areas receiving amounts well above normal and the wetter windward areas receiving amounts considerably below normal. The southwest coast of Kauai was extremely wet with some gages reporting 3 to 4 times their October means. Despite the flooding rains in Hawaii's north Kona district, the Kohala and Hamakua coasts of that island continued the protracted dry weather which began in May of this year. Restrictions on burning were imposed in the area.

Funnel clouds were observed on 3 days during the month. At 3:09 p.m. on the 2d, a pilot reported a waterspout about 3 miles west of McGregor Point, Maui, moving westward. On the 4th, Wheeler Field reported 2 funnel clouds, the first at 11:56 a.m. to the east and moving westward, and the second at 11:58 a.m. to the south. Each lasted only about 2 minutes. These funnels were associated with northward moving thunderstorms to the east and south and with occasional cloud to ground lightning. Heavy thunderstorms broke over Wheeler Field at about 12:30 p.m. On the afternoon of the 22d, Wheeler Field again observed 2 funnel clouds. The first, described as stationary, noiseless and rotating in a counter-clockwise direction, was observed about 3 miles to the northeast at 1:35 p.m. and appears to have been associated with a dense column of smoke from a cane fire. The second funnel, very thin, white and rotating counter-clockwise, was seen 2 miles north of Wheeler at 1:37 p.m. and extended to within 500 to 800 feet of the ground from a cloud base at about 2,100 feet. The funnels on the 22d were associated with towering cumulus clouds, but very little rain.

# HAWAII - OCTOBER 1968

# SPECIAL WEATHER SUMMARY - CONTINUED

# Stations With More Rain in October 1968 than in Any Previous October

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest October Total	October 1968
KAUAI			
Eleele	67	6.92 inches	9.10 inches
Hukipo	27	6.50	9.79
Makaweli	76	7.00	7.85
Puehu Ridge	28	7.20	8.60
Waimea	55	6.71	8.50
HAWAII			
Holualoa	39	19.02	20.60
Holualoa Beach	47	6.98	8.16
Middle Holualoa	25	7.46	8.16
Puu Waawaa	64	8.55	9.07
	Station With Less Rain i in Any Previous		
	(25 years of record	or more, only)	
Station	Length of Record (Yrs.)	Previous October Minimum	October 1968
HAWAII			
East Honokane	42	2.85 inches	1.50 inches
	Stations Whose Previous Grea were Exceeded in		als
	(25 years of record	l or more, only)	
Station	Length of Record (Yrs.)	Previous October 24-Hour Extreme	October 1968
KAUAI			
Hukipo	28	2.47 inches	5.52 inches
Makaweli	61	3.70	5.10
Puehu Ridge	28	4.05	5.31
Waimea	26	2.65	5.38

### HAWAII - OCTOBER 1968

### SPECIAL WEATHER SUMMARY - CONTINUED

Stations Which Recorded Their Highest October Temperature of Record in October 1968

(10 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Highest October Temperature	Highest in October 1968
KAUAI			
Makahuena Point	10	92 degrees	93 degrees **
OAHU			
Makapuu Point	17	86	89
HAWAII			
Kohala Mission	60	90	91 **

Stations Which Recorded Their Highest October Average Maximum Temperature of Record in October 1968

(10 years of record or more, only)

	Length of Record	Previous Highest October	Average Maximum
Station	(Yrs.)	Average Maximum	in October 1968
KAUAI			
Makahuena Point	10	86.8 degrees	87.2 degrees
OAHU			
Honolulu Substation	63	83.5	84.7
Makapuu Point	17	81.3	83.9
Opaeula	62	83.6	84.5
MAUI			
Hana Airport	17	85.2	85.9
Kailua	55	81.8	82.6
Wailuku	56	87.4	88.1
HAWAII			
Hilo WB	21	84.9	85.6 *
Kamuela Airport	13	78.0	78.5
Kohala Mission	60	83.3	84.6
Mountain View	30	80.8	81.0
Upolu Point USCG	12	86.9	87.1 **

<sup>\* --</sup> Highest in any month.

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811 Russell Dorr Acting State Climatologist, Hawaii P. O. Box 3650 Honolulu, Hawaii 96811

<sup>\*\* --</sup> Tied for highest in any month.

Station	Total	, ,	2	2		5	6	7	8	9	10	11	12	13	of M	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
	F	1	2	3	4	5	Ь	/_	8	9	10	11	12	13	14	13	10	17	10	13	20	21	20	20	24	20	20	21	20	20	30	31
SLANO OF KAUAI AHOLA 1111 A YOESHOOD STA 985 A	10.98	1.17	5.40	.01		:	:	.05	.10	.05	.38	.06	:	:	.03	.01	.05	3.20	.26	:	•	1.79	.03				•	•	.04	.01		:
TOESHOOD SIN 765 A ST LAWAI 934 A LAULA 1110 A	9.54	1.20	5.96	.20	т	•	*	.04	.02	.09	.48 .41 .20	T .03			.06		.10 T	.78 .71 1.90	.94	:	:	.30	.01					:	T .15	.04 T	.01	
LENANAMO 1006 A	15,88		5.40	.15		٠	٠	.04		2.25	.47	1.92		*	.24		1.29		1.17	•		1.17	.06						.07	04	.05	:
IILIULA INTAKE 1050 TAKE HAINIHA PC 1086 A LIHIWAI RES 1131	18,91	3.40	1.34	.13	٠	*34	:	.03	.01	1.75	.19	.17	.10	٠	٠	.65		2.17	3.14 1.05 2.41	.80	• 42	.07 1.84 .94	.04				*	٠	.02	.06	.01	:
VALOMULUMULU 1075 NEMA RESERVOIR 1092 A	9.89	1.33	6.05	.02		.06		.02		.07	.67	.03		:	.08				.69 2.90 1.20	.09	.03	.55	.08					:	.03	.05		:
PAA STABLES 1104 A ALIA 1112 A KAHA 944	11.01 9.93 7.84	.73	6.33 6.00 4.75	.02	.01		.08		.07	.17	.20 .15	.26			.01		.07	1.15	.90	•	•	.07					•	•	,05			
AUEA 1134 AUEA FIELO 17 1135 A	13.79	2.00	3.09 3.72	.01				.11	.03	.02 .06 .72	.49 .81	.09			.07	.02	.07 .01 4.46		1.72	:	* * * * * * * * * * * * * * * * * * * *	.32	.06				•	•	.01	.02	.06	
LO 1033 LO 936 A	11.37 5.75 10.63	.56	3.05 5.15	.05		1.00	٠	.05	***		1.07							1.40	.07	٠	*	. 57								.08		
.0A MAUKA 994 A .0X0 RES 1137 A KUIULA 935 A		2.86	3.63	.54			:	.24	.01	.14	.24 1.05 .22	.31	:	:	.07	.02	.10	1.52 4.53 .72	. 45	:	:	1.51 .70 .36	.02	.01			•	•	.05	.04 .18 T	.03	
UE VARIETY STA	13.88	1.48	4.16	.04	.01	.05	:	.03		.83	.08	.17 1.35	.02	٠	.04		.25	2.32	.41	.49	:	.40	.07				:		.13	.03	.03	-
UE #8 AP 1020.1 R AHUENA POINT 940.1 AWELI 955 A	8.95 7.85	4.34 1.38 5.10	.01		.02	.01		.01	. 41	.33	.05	T	.04			1.12	.83	.07 1.67	.02	.04	.09	.01	Т					Т		Ť	. 22	
A 1026 IHI UPR CROSS 1083	-	-51	-	.01	-	.35	-	-01	-07	.09	-	-		ī	-	-	- 03	-32	-	-	-	. 29	-	- 01	-	-	-	-	-	.08	- 01	
DAA 1145 A NT WALALEALE 1047 RIOGE 1035	9.47	1.15	4.35	.10	2.44	•	1.43	54	.14	.10	.68	-01	-	:	-06	- 10	.20	1.45	.12	:	:	.90	- 02	-01	-	-	-	-	-	.11	-	
AILUA OITCH 1051 A HAINIHA 1115	9.92		3.43	.01				. 24	T . 02	.02	.31	.10				• • • •		1.50	1.55	.95	.22	.07	.01						.01	.09	.04	1
NCEVILLE RANCH 1117 HU RIOGE 1040 1 1013 A ERVOIR 6 1004 A	8.60	.92 1.54 1.05 2.11	5.29	.15			.36	.09	. 05	.13 1.58	.20	.45	:	:	.06		.45	.25 2.11 1.50	.16	:	:	.63	.05				:	:	.11		.06	
TAWA 930 A TAWA HOUNTAIN 990 A		1.27	4.90	.10							.45	T *						.67	,30			. 52	•							• 01		8
AHI LOMER 1054 AHI UPPER 1052 AWA 943	14.85 19.96 6.45	1.79	5.36 4.54	.18		.50			. 29	.52 1.76 .05	.15	.56 .56	.11	.07			.21	2.50	4.02	1.09	.31	.17	.03						.05	.06		1
LUA KA1 1065 A 1EA 947	10.50	1.20	5.42	.12						.05	.09	.03	П				1.10	.10	.03	.05	•	.46					•	•	.13		.02	
CLAWA1 931 A	8.54	1.26	5.06	.06							.52						.01	.51	.59	•	•	.47								.01		
LAND OF DAHU A FIELD 625 761 A ETANIA PUMPING STA	5.42		1.75	.03		.02		:12	т	.70	.33	<b>T</b>	.03		.02		.59	.38	. 12 T	•		.38	.02	.04							.08	
P 84 807 A RCM COLLEGE LAIE DNUT ISLAND 840.1	2.11 6.51 3.51 3.59	2.20	1.83	.14 .03	1.93	1.17		.01	.09	.04	.40	•	.09	.01	.73	.07	.26	.18	.01	.01	.06	.04	.02	.06	.01				. 04	•	.08	
PLANTATION 741 EMAND INTAKE 881 A	2.62		1.45	.65	.06	.01	.03	.26		.10	.15	٠	.01		. 26		.05		.05			1,52		.03								
ULOA 725.2 A OLULU OBSERV 702.2 DLULU WBFC 703 R	3.40	+05	2.05	.40	.02	* T	.01	•	.02	.10	.47	• 11	.07	•	• 02	• •02 •02	.13	.01	.17	* T	.02	*	.22	.09	•	•	•	* T	* T	.04 T	.05	
DLULU SUBSTA 70% P A EXP STA 707	2.00	* 73	.53	.17	.45	.03	.22				.07	.07	.01			.05	.02	.05		.01	.04		.07						.01		.04	
ANA 883 A UKU 912 A LUA FIRE STA 791.3	12.46 4.49 5.70	.06	2.50	.10	.01	.10	.40	.90	•	.23	• 12 T	.01	:	* T	.31	.04	.19	.61	.15	.02	• • T	3.14	.13	• • 03 T	•	•	•	•	1.12 T	•	•	
THE RES SITE 777 EDNE MAUKA 781	6.69	1.94	.40	.32		.02	.12		.17	.24		.06	.04	.06	.02	.48	2.60	.70	. 50 . 02	.16	.26	.33	.24					.02	.02	.02	.10	
EOHE RANCH 838 A ALAMA 773 A ALMAPA1 841 A	5.55 .81 3.07		2.15	.20	.06	.04	:	.35			.15	.01			.03	Т	.26	3.60 .38 .30		,25	•	.05	.03	.34	1	Т	•	•	•	•	•	ı
AI 1K1 1NTAKE 880.2 A DO CAMP 8 855 A LAU OAM 833	7.50 8.06 12.65	3.00	3.20	1.07	2.45	* * * * * * * * * * * * * * * * * * * *	.78	.03	.08	.79 .42	• •11 •36	* .02	*	:	.06	*	.11	• •48 •77			.02	.19	•	• 09	٠	•	•	•	.13	•	.02	
LUALEI 804 LUALEI WTR TUNNEL A	3.36		1.10	.02	.52	.28				.12	T	.02	.02	*05		* 05	1.23	T	T	1.10		•		.02		٠	٠			4.00	+	ı
ALILO HOME 724.2 AMA KAI 796 A AMA VALLEY 800.1 A	2.35 3.58 4.62		1.40 1.29 1.50	. 19	.06	.70	ļ			.24	.06		.02		.01 .01		.35 .73 .74	.01	.25	.12				.08					.09			l
APUU POINT 724 JA 712	1.07	.03	1.10	1.82	T	.04	.04				.10		.06				.11	.01			.58		.03	.01 .06			.02	.03			.11	
DA TUNNEL 2 716 HALUA 770 NHU RES 4 783	5.80	1.14	1.22	.10	.06 1.44 .14	.04	.08 .05			.02	.10	.04	.20			.60	.07	.34 .37	.26	.18	.66 .25		.60 .03	.32		.02	.02		.02	.14	.28	
NU RESERVOIR 5 775 A FULA 870 A	5.23	T	2.95		.91	. 22	•	.31			• 01	.06	٠	٠	.16 .01	•	.22	.49	. 25	:	.36			.10			•	•	.06	.02	.05	
OLO VALLEY 718 OA FLATS 784 TLOCK ROAO 724.4 WAMIAWA 820.2	5.60 10.92 2.75 8.78	1.12	1.20 2.08 1.36 3.70	.05	.10	.02	.16	.02	.02	.04	.02	.32	.22	.06		.64 .80 .22	.02	.80 .03		.02	.32	.02	.30 .38 .02	.08 .06	.09			.02 .02	.06	.28	.14	
ALJU 884 A CH80#L CRATER 709 A	5.65 3.20	.03	3.70 2.23	.77	.70	* * * * * * * * * * * * * * * * * * * *	:	1.16		.72	.10		•	:	.21	.03	.50	.76	. 2 1	•	*	.16		.15	.02		•	٠	,03		.03	
STEPHENS SEM 788 TALUS 2 780.5 V DF HAWAII 713 A	8.32 6.13 4.97	.04	1.82	.40 .13 1.04 1.20	† 11	.33	.34	.01		Т	.05 .02 .05	T	.23		.01	т	.30	.13 3.76 .10	.32	.41	.18 .27 .92	T .02	.03	.06	.01		:	:	.04	T • 46 T	.03 .09 .18	
[Δ+Δ 0ΔM 863 Δ MHDLE 837 Δ	5.90		2.68	.05	.78	:	.05	9	.01	.93	.08			:	.01	.23	. 12	.32	.08	٠	.13	.50	.02	.05			:	:	•	.01	.01	
LAE KAMALA 715 LUA 847 A NAE 798 A	3.21 3.25 2.67	.01	.31 2.49 1.61	.06	.01	.02				.04	.03 .07	Τ	.03		.03		.92	.09	.01	.11	.02	T	Ť	107					.02			
ANAE MAUKA 803 A ANA 836 A	7.62		2.50			2.70				.64			.31	:			1.15		:	.08		:	•	• 15				•	•		.09	1.2
KANE 885 KIX1 717.2 LUPE RESY. 723.2 MANALO 794	8.39 2.01 4.08		0	.35	.03	.03	T +	4.60		:	*10		.06		1.12		.59	.14	t T	.04	T e	1.96			. 26		•	•	.65			Ì
MEA 892 A	2.50 6.24 5.18		3.20	.30	Ŧ						.03	T	.24	.01			.88	1.10	.67	.09		.04	.03						. 02 T			
HELMINA RISE 721	2010	.01	1.26	.37	.30	*		.05		. 93	. 28	.04	.08		.08	.54	.10	.37		.54	.20	.04		.01					.04	.02	.01	

Continued	,																													HAWAI OCTD8		1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
* * * ISLANO OF MOLOKAI																																
KALAUPAPA 563  KAUNAKAKAI 536  KEONELELE PENS 551  KUALAPUU 534  MAPULEHU 542	3.48 2.44 4.66 2.84 3.46	1.32	2.21 1.19 2.65 2.10	.04	.25	•	•	*	•	.01	*	•	•	. 35	.05	. 79	.08	.73 .44	.03	.08	.53	.11	.03	•	•	•	•	.47	.04	.02	.08	.04
MAUNALDA 511 A MOLOKAI AP 524 PUUDHOKU RANCH 542.1 WAIKULU 540 A	4.30 3.86 1.93 7.00	1.98	3.04	.28	.27			4.68		.16		.12	Т	.02	.14	+32	.23	.06	.07	.05	. 34	T 1.34	.19 .04 .52	T •01					.04 .07	T .01	.10	.03
ISLANO OF LANAI																																
KANEPUU 690 A KAUMALAPUU HARBUR 658 A LAMA1 CITY 672 A LAMAIHALE 684 A MAHANA 694 A	2.24 1.38 4.48 4.41 3.55	.08	.52	.49 .03 .15 .26	1.42	.04	* T *	T	T	* * *	.72 T 2.51		:	.06	.13	:	.62	.51	:	:	:	:	:	.70 .96	.02	T .	:	:	* 17 *	:	:	.07 .
MALAUEA 676 A WAIAKEAKUA 685 A	4.09 3.65	:	.32	.66	:	:	:	1.47	:	:	• 62	:	:	:	.04	:	* 1.01	2.76	.04	٠	•	•		• 77	.05			٠	T			:
ISLANO OF MAUI																																
AUWAHI-252 A HALEAKALA 8 E S 434 A HALEAKALA RANCH 492 A HALEAKALA RS 338 HALEAKALA SUMMIT 338.4	5.86 3.80 2.51 5.87 3.17	* T	.19	1.56 .84 .46 2.82	.41 .07	.03			.10	• • 58 • 90	* T	.06		* T	2.55 *		.09 • .01 .40	* T	1.10 .02 .11		1.48 1.20 1.28	.08 * T	.06	.04 .29 .51	* T	. 25	٠	•	.05 • T		* T	.01
HALIIMAILE 423 A MAMAKUAPOKO 485 HANA 354 HANA AIRPORT 355 HANAHULI 281	1.81 2.62 4.07 4.00 6.26	.06	.73 .30 .05 .16	.10 .06 .34 .52 3.50	.07	.02		.05 .19 .23	.03				. 20	T .01	т	•04	.23	.03 .24 .05	.03 .18 .32	.72	.62 .31	.63 .04 .16	·11 ·34 ·74	.91 .02 .01	.01		.03	•	.04 .15 .80 .49	.01 .06 .05 .02	.01 .07 .08 .07	.05 .
HOLUA CABÎN 259.5 A HONOKOHAU 480 A HONOKOHUA 493 A HONOMANU GULCH 341 A KAANAPALI AIRPORT	3.44 2.40 3.32 5.20 .62	:	.43	:	:	:	:	:	:	•	:	1.65	:	:	:	:	.04 2.16 .18	:	:	* * * T	.11	45	.07	.05	:	:	:	:	.06	.02		2.40 · .03 · .
KAHDHA INTAKE 374 A KAHULUI W8 AP 398 R KAILILI 436 A KAILUA 446 KAUAULA 1NTAKE 375 A	3.28 .80 5.51 5.28 1.95	.04	.40 .04	.32	1.85	•		* • 32 • 68	.07	•		• 06			•	* T *	* *16 *	.32	.70 .08	.07	.05 e	* T *	.93	• • • • • • • • • • • • • • • • • • • •	:	.50		: :	* T * .78 .74	*32	* :31	5.51 · · · · · · · · · · · · · · · · · · ·
KEAHUA 410 KEANAE 346 KEAWAKAPU BEACH 260,2 KIHEl 311 KIPAHULU 258	1.00 5.70 .38 .83 7.59	٠	.13	.21 .23 2.45	.24 .16	•	•	.34	* T	٠		٠	•	.01	.04	•	.03	.06 T	•	.05	.07	.12	.51	.38	•	•	•	٠	. 84	٠	* T	5.70
KULA HEIGHTS 323.2 KULA SANATOR1UM 267 LAMAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A	2.51 4.93 1.52 2.60 2.44		.45 .27 .35	1.74	.13 .76 .51	.05	T *			.36	.09			.05 .30 .24		.05	T .01	.05 1.68 .23		.02	.07			.10							.02	T .
LUPI UPPER 442 A MAMINAHINA 466 A NAKALELE -FLO 50-497 A OLINOA 332 DLOWALU 296	5.00 2.52 4.61 3.94	• • •10	.65 .12	* 2.15 .03	.06 .06	:	:	* 3.60 .01	* * T	• •62 •03	* T	* * .01	* .21	.53	.09	*	* .67	* .01	.01	.19	. 26 •	* :41	.10	e . 45	* * T	• • T	:	:	.32	•	.04	5.00 ·
OLOWALU GULCH 377 A PAAKEA 350 PAIA 406 PANILEIHULU 259.2 A PAUWELA 490 A	1.40 6.04 1.66 7.86 3.62	•	.51	.17 .20			:	* 34 T *	•	•					:	•	.52	.23	.70 T	1.04	.96	.09 T	.58	.20			:	:	.83 .04	.05 T		1.40 . .26 . 7.24 .
POHAKEA 8RIOGE 307.2 POLIPOLI SPRINGS 267.2 A PUDHOKAHOA 2 343 A PUU KUKUI HAKAI 472 A PUUNENE 396	4.84 7.20 1.60	•	.08	.67	.01	*	:	:	:	:	:	:	:	:	:	:	:	:	:	* * * T	•	:	:	•	:	*	:	:	.01	:	4.84	7.20 ·
SPRECKELSVILLE 400.2 TWIN GATES 261.3 UKULELE 333 UKUMEHAME 301 ULUPALAKUA RANCH 250	1.57 1.99 5.12 1.05 4.65	:	.40 1.99 •	.17	.58 1.50	1.54	:	:	.08	.02	.15	:	:	:	.50	:	.05	.56	:	*14	. 25 •	:	:	.20	:	:	:	:	T •	:	:	5.12
WAMIKULI 364 WATEHU CAMP 464 WAIMEE VALLEY 482 WAIKAMOI 449 WAIKAMOI 0AM 336	1.88 4.90 8.04	*	.73	1.44		:	:	* * * * * * * * * * * * * * * * * * * *		.22	.06	:	.01	:	:	:	.03	.02	.20	.10	.07	3.96	.02	.22 * *	.01	.01	:	:	.10	.02	.06	4.90
WAIKAPU 390 WAILUKU 392 WAIDPAI RANCH 256	1.14	•	.53	.40 .50	•	•	:	.02	*	•	٠		:		* 1.85	:	.01		2.00	.05	.09	, 32		:	•	. 33	•	•	.04	* T	٠	• :
* * * ISLANO OF HAWAII	5.84					,		****					-		**07	,			2.00			, ,,				. 53			.00			·
AHUA UHI 75 A AMINI 182.1 A EAST HONOKANE 183.2 A HAINA 214 HAKALAU 142	3.50 2.72 1.50 1.49 5.05	. 55 *	:	•		•	:	*	.08	•		*	.52	• • •12 •01	:	•	.08	:	.08	* * * .16 .75	• • • • 50 • 27	1.34	.15 .16	* 11 * 05	:	:	:	:	.10	.05	.12	3.50 .
HALEMAUMAU 52 A HALEPIULA 117 A HALEPOHAKU 111 A HAWAII VOLCNS NP HQ 54 HAW1 166 A	3.29 2.00 6.47 2.25	:	•	.04	.03	.04	.37	.01	* * T	• • • •	.01	3.22	.02	:	• • • • • • • • • • • • • • • • • • • •	:	.19 1,50	.47 .02	.32	.17	.62	.10	.07	.41	:	.05	• • - T	.01	.07	.01		3.29 . 2.00
HILO WA AIRPORT 87 R HOLUALOA 70 R HOLUALOA 8EACH 68 A HONAUNAU 27 HONOMINA 137	5.97 20.60 8.16 2.68 4.43	T •	* 10 .03	.07	T 0.00	.10	1.20 1.00	.01	٠		1:12	.26	.10	• •15 •01	.02	.03 • .18	* .04	.46 .64	.78 • .14 .10	.45	.70		1.00	.15		.06	.05	I	7 •	.08	.07	.15
HONOKANE 161.1 A HONOMU HAUKA 136 HONUAULA 71 A HUALALAI 72 A HUEHUE 92.1 A	2.69 7.03 3.40 2.20 4.33	.03	*	.07	:	:	:	.41	:	* * 1.24	:	.94	.06	.24	:	:	.14	:	.35		1.26	1.80	.03	.06	:	:	:	:	.22	.01	.08	.09
KAALA IKI 12 A KAAWALDA 29 A KAINALIU 73.2 KALAPANA NO 1 67.8 KAHADA NO 2 5	8.57 3.14 3.98 9.03 3.61	T	.03	.28	1.61	1.51	.51	.17	.09	.01		.90	.33	2.70	1.17 .12	.05	.03	1.25 .23 .22 1.57	.10 .20 .05	:	.03	.22	.02	.39	.05		.04	т.		.04	.16	.08 .
KAMUELA 192.2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36 A KAPOHO LANDING 93.5 A	1.95 1.54 6.99 6.93	т		.53	.32		T .	2.00	.08	.05	.33			.05 T	:	:	.87 .45 .58	T •	.03 T		.05	.07 .02 .08	T • 22	.02	T .	T .02 2.12	:	:	T .08	7 .25	.02 T *	:

HAWAII OCTOBER 1968		
	HAWAII	
	DCTOBER	1968

Contued					-	-			-						Dav	of M	onth																
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
εάμμα :- σ8.' εάμα [10.] Εμπρπ   93 Εάμα   92 Επεριακέκτια   20+2 Επερια   181.2	A .	9.36 3.19 5.62 3.19 4.50	.06		.09	1.19	.27		1.11		.02		3.04	.01	.08	.03 .03 .24	.01	.04	•	1.04 .90 1.03 .17		1.28 .68 .03	.85 .13 T	.41 .89	*14 * *17	. 25	1.10			.28	.08	.33	.15
* EMEN* 181. 2 * ID AKAA A & F 6 * IPA 89.2 * DMALA 179.1 * CMA A MAULILI 176 * KOMALA MISSION 175.1	A A A A	11.60 9.29 1.17 2.19 1.79	.14	٠	.13	٠	•	.08	.08 .01	•	.04	· T	2.55	.02	.87	.08	.02	.27 .77	.03 .01 .01	.58 .01 .06		.97 .20	.63 .68 1.07	.52 .05 .03	.04 .10 .04	•	٠	† † *	:	.76 .02 .12			
KOJANE LOHER 196 KONA AIRPPAT 68.3 KONA VILLASE 93.8 KONAJAU 222 KUNUJHAELE MIC 199	А	2.69 3.21 .32 2.28 1.60		.20	٠	.86 2.50	.10	.01	.02	.01	.08			٠	.49	٠	• 10	.07	*	1.10	.29 .23	.53	.58	.02	.08	•	.73	•	•	.06	Ť	•	•
KUKUIHAELE #ILL 206 *ULANI CAMP "9 *ULANI MAUKA 76 *ULANI SCHODL SITE 78 LANIMAJ 68.2	A A A	1.76	1.44	.05		.98	2.50		.31		*		1.05	1.18	.06	٠	*	.06	.06	.56		1.48 .57 2.10			.20	.02	.08			.09	.44	.09	
MANUKA 2 MAUMA KEA BEACH 98 MAUMA LOA SLOPE 085 MIDDLE MOLUALOA 68.1 MIDDLE PEN 147.1	A	2.36 .65 2.21 8.16 3.24	.54	.98	.10	6.00		1.20		.01 T	T *		. 25	.01	* 07	.99	T • 10	.05	.64		* 14		.05	.32	•41		.14		•	.03		•°1	.03
MOAULA 18 MOUNTAIN VIEW 91 NAALEHU 14 NAPOOPOO 28 NAULU FOREST 38.6	A A	11.25 8.64 6.82 1.57 8.91	T #	.45	.1.	.34	:	:	1.48 .30 .41	* 01 *	.05	* T *	1.62 2.47 4	.07	1.65	*07 *10 *51	* 09 T	.03	.02	.73	.53	1.43		. 24		.01	.07	•	•	.23			.36 .05
NIULII 179 ODKALA 223 OPIHIMALE 2 24.1 ORCHIO LAND EST 91.5 PAAJHAU 217	А	1.73 2.34 3.11 10.26 2.02	٠	.06	. 5.	.01		* <sup>77</sup>	.12	:17	T .		.13	.13	.03 .08 *	* 0 7 *	.03 *	.73	.04	.02 .10 T	.55	.72	.01	.03 T	.13	Ţ	3.26			.12	.03	. 22 T *	:15
PAAUILO 271 PAHALA 21 PAHOA 65 PAKAU 37 PAPAICOU 144.1	Δ	1.82 11.15 12.50 12.10 6.57	.20	3.19	.1	3 4.78		٠	.10 .21 *	.06			3.06	.39		.38 .39	= 0.5 *	.07		1.29		1.21	.23	.68	.48		. 22			.15			12.10
PAPAIKOJ MAUKA 140.1 PEPEEKED MAKAI 144 PIIMONUA 89 POMAKUJOA 107 PUAKO 95.1	A	9.42 6.21 13.40 .73	.01		.0	:	:	.02 *	.74	•	٠		1.36	.02	.39	*	• 0 8 *	.07	.02	.92		1.38	1.08	.76 1.08		T .	:		:	.72	:14		.02 .31 ±3.40
PUU KIME 120 PUU LAAJ 102,1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167	4 4 4	.97 2.18 1.90 1.27 2.38		•	*		:	:	:	:	*	.02	:	:	:	* * * * * * * * * * * * * * * * * * * *	:	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	*	:	*	1.21	02	.05	:	:	:	:	.06	.01		.97 2.16 1.90 1.27
PUU 00 82 PUU maamaa 94.1 SADOLE ROAD I 84 SOUTH PDINT CORRAL 3 UMIKOA 116	A A	7.64 9.07 14.05 3.73 2.37		2.3	5 2.4 1.4 *	4.00		:	* * * * * * * * * * * * * * * * * * * *	:	:	• 3		.67	.04 * 1.51	:	•04 •	1.93			T	1.07	:	:	*110 *110 *		4.05		•	† ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	•	.08	
UPOLU POINT USCG 159.2 HAIAREA SCO 88.2		9.38		.0	9 .0	8			. 24				2.38		.15			.05	.14	. 46	.19	1.95	1.58	.42	. 67	7 .0	в	.04		.06	,	.09	

# SUPPLEMENTAL DATA

		(	Wi Speed -		)		Relat	ive hum	idity ave	erages		Num	ber of d	ays with	precip	itation			inset
Station	Resultant	Resultant	Àverage	Fastest mile	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI	DIAN TI	ЧЕ 8 РМ .	Trace	.01–.09	.10–.49	.509 <del>9</del>	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunnse to st
HILO: HAWAII: W8 AIRPORT	15	2.0	5.9	20	E	01	90	77	71	89	4	8	7	2	2	0	23	50	5+8
HONOLUL . OAHU: WBFC	7	5 . 4	9.8	26	NE	20+	82	75	61	7.5	6	10	4	0	1	0	21	64	5.3
KAHULU[ • MAU] • WB A[RPORT	6	5 . 6	9.4	26	NE	21	8.8	76	55	79	4	4	2	0	0	0	10	79	4.7
THUE. KAUAT. WE AIRPORT	6	2.5	8.1	29	SW	01	90	88	79	88	4	5	6	1	0	2	19	60	5.9

# DAILY TEMPERATURES

										DA	IL	Υ .	ΓE	MF	EF	RA	TU	RE	S												I I A W	ER	1968
Station		1	2	3	4	5	6	7	8	9	10	11	10	12	14		of Mo		10	10	20	21	22	00	24	25	200	07	20	20	20	21	verage
* * *	Ī	1	- 4	3	4	3	0		8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	K
ISLAND OF KAUAI																																	
KANALOHULUHULU 1075	MAX	72	65	73	75	76	78	80	76	77	78	74	72	77	76	79	71	71	68	73	71	71	74	72	73	73	72	71	72	74	73	72	73.5
KILAUEA POINT 1133	MIN	79	62 86	91	59 84	57 87	59 88	56 89	58 89	58	58 87	84	91	55 88	56 86	54 88	56 83	56 81	83	84	59 84	52 85	47 85	46 85	85	45 85	45 86	50 85	48 88	51 87	51 88	5 4 8 8	54.9 85.8
LIHUE W8 AP 1020.1	MIN	71	77 83	76 85	75 85	76 83	83	74 83	73 82	72	73	78	75	77 83	75 83	72 83	65 81	82	69 83	73 83	72 81	72 81	73	71 81	71	70 81	72 80	73	74 82	73 82	72 83	73 82	72.8
MAKAHUENA POINT 940.1	MIN	70 90 74	80	73 91	72 93 76	71 89	72 88 76	70	87	92	68 90 74	71 89	89	71 92	74 88 75	88	70 88 78	71 87	87	72 85 74	73 85	73 85	65 85	84	85	84	86	87	85	71 85	72 85	86	87.2
MANA 1026	MIN	89	80	79 88	89	75 91	89	76 88	73 88	73	85	72 87	89	76 88	88	76 89	39	90	83	87	88	87	72 86	76 87	73 86	74 85	86	70	87	72 88	89	88	73.9
NIU RIDGE 1035	MIN	72 85	71 76	76	73 85	73 86	87	70 86	70 85	72	70 82	73	73 85	70 87	70 85	73	72 85	70	70	85	85	84	83	68 83	82	82	80	81	80	80	81	83	83.3
WAIAHI LOWER 1054	MIN	82	63 84 68	85	88 67	85	85	85	85	83	65 86 63	88	84	84	65 84 66	86	86	78	81	65	82	63	62 83	83	83	86	63 85	83	83	83	83	83	83.9
* * *	MIN	64	08	69	6/	66	67	63	64	65	63	65	68	66	00	68	66	64	68	68	68	62	61	60	58	59	58	60	60	62	63	66	64.3
ISLAND OF DAHU																																	
EWA PLANTATION 741	MAX	79 75	83	8 <b>7</b> 72	86 73	87 70	89	89 68	86 68	8.5 7.0	85 73	87 70	88 75	89 71	89 70	68 72	85 71	89 70	89	87 72	87 74	87	86 69	86 67	89	87	88	89	8.5	90	86	88	86.9
HONDLULU W8FC 703	MIN	81 76	85 74	67 75	86 75	91	90	90	87 71	88	87 78	90 75	88	90 75	92 74	90 76	87 75	89 74	90	89 76	89 74	68 89 75	90	87	89	64 85	85 67	63 88	67 87	90	88	89	88.2
HONOLULU SUBSTA 704	MAX	82 75	83 74	86 77	84 78	73 86 76	86	72 85 75	83 74	84	85 80	86 79	65 77	88 77	87 76	67 76	63 75	85 75	86 77	83 77	84 76	84 77	85 74	71 85 73	83	84	84	84	71 85	73 84	71 85	85	73.0 84.7
KAHUKU 912	MIN	86	86 71	87 71	89 71	76		88 71	88 67	76 88 67	85 67	85 67	'		88 72	87	86	84	85	, ,	70	85 75	85	86 69	72 86 65	72 85 65	71	71	74 86 65	75 85 75	74 85 71	76 85 75	75.4 86.1
KANEDHE MAUKA 781	MIN	81 73	86 74	88	86	86 74	85 74	85	87 71	85	87 75	90 76	89 73	81 74	86 75	83	84 75	85 75	84	83 73	87 73	83	85 71	85 70	79	85 68	80	84	83 73	85 71	84 72	85	84.7
LUALUALEI 804	MIN	87 70	81 74	85 74	87 74	85 70	80 78	90 70	89 72	87 73	86 75	85 71	89	88 74	90 71	88	86 72	82 72	87 76	85 76	85 78	87	87 72	85 67	87	86	87	76	86	86	88	76	72.7 85.6
MAKAPUU POINT 724	MIN	88 75	80 71	89	81 71	87 75	84	87 75	83 75	88	84	87 75	85 76	87 75	84	84	85 75	83	84	83 72	79 75	85	80	81 73	68 85 74	81 72	76 84 72	64 82 73	65 82 74	69 86 75	72 81 74	73 81 77	71.9
OPAEJLA 870	MIN MAX MIN	83	74 69	81	85	86 67	88	81	87 65	88	83	83	85	88	88	88	85 68	80	83	86	82 67	81	83	84	85	84	87 65	85	88	84	85	84	74.2 84.5 66.5
PRI WAHIAWA 820.2	MAX	87	77 71	84	88 72	84	89	88	83	87	85 72	86	89	90	89	89	87	85 68	86	85 71	85	85 67	86	91 65	86	87 61	87	87	88	83	88	86	86.5
WATALUA 847	MAX	87	80 71	89 72	88	80 72	89	89	89 67	85	86 72	87	88	90	88	90	67	88	86	86	85 70	86	86	88	86	89	86	85	86	86 63	89	87	86.8 67.7
WAIKIKI 717.2	MAX	89 74	83	88	87 75	87 72	89	89 70	90	88	89 74	89 72	89	90 73	90	90	89 74	87 73	87	88	87		88 73	87 71	88	87	88	87	87	87 73	88	89	88.0
* * *											•	,,,						,,,					,,,	, .					•	,,	10	1,	,140
ISLAND OF MOLOKAI																									1								
MOLOKAI AP 524	MAX	87 72	85 74	87 72	85 72	86 70	86 70		85 70	85 73	85 74	87 72	84 77	87 75	87 70	87 73	82 73	83 71	84 73	84	84 75	83 72	84 72	83 70	86 68	84 65	85 68	85 68	84	8 4 7 2	83	86 72	84.9 71.5
* * *																																	
ISLAND OF LANAI																																	
LANAI CITY 672	MAX		82 65	79 63	77 68	77 66	79 65	78 66	79 68	82	81 67	85 69	84	82 70	83	82 67	82 67	81		79 69	82 68	82	78 64	78 63	78 61	79 60	77 63	79 62	78 64	78 63	7 A 6 4	80	80.0
* * *																																	
ISLAND OF MAUI																																	
HALEAKALA R5 338	MAX	60 45	66 48	66 49	66 55	67 55	68 54	70 47	67 51	64	64 46	64 52	67 51	68 52	72 51	69 52	69 50	64 50	65 51	63 48	62 48	62 46	61	60 42	60	65 43	68	66	69 41	64	65 43	63	65.3
HALEAKALA SUMMIT 338.4	MAX	60 45	58	57	5 5 4 5	59 43	61	62 43	56 44	57	56 41	55 45	56	58 48	62 47	59 45	57 43	53	53	50 36	53 40	53	68	53 40	59	60	60	62 43	67 42	64	57 40	60	58.1 42.7
HANA AIRPORT 355	MAX	86	86 70	86 72	86 70	86 71	86	86 71	86 66	87 66	88 68	88 74	86 72	86 72	86 71	86 71	88 72	86 70	86 70	86 70	85 71	85 70	84 70	85 69	85 65	85 68	86 66	8.5 6.6	85 70	86 70	86 69	86 71	85.9 69.7
KAANAPALI AIRPORT	MAX	87 69	87 75	87 73	85 73	89 71	88 73	89 72	87 71	8.5 7.5	86 73	87 74	88	87 74	88 70	67 72	86 72	90 72	86 72	87 74	86 73	87 73	86 70	86 69	86 68	86 67	86 68	86	8 5 7 2	86 71	85 70	87 70	86.7 71.5
KAHULUI W8 AP 398	MAX	91 66	92 73	91 70	92	91 67	90 72	87 70	89	90 68	90 72	92 70	90 71	91 71	91 67	90	90 70	89	90	87 72	87 73	89 72	89	90 66	90 61	90 62	88 63	89	89 73	89 65	90 67	91	89.8
KAILUA 446	MAX MIN	82	85 68	85 68	85	84	82 69	82 69	82 66	84	84 66	84 67	85 70	86 71	85 67	84	83	84	82 68	80 69	80 69	81 70	81 68	80 67	81	81 64	81 63	84	8 1 6 7	81	80 67	81	82.6 67.3
KEAWAKAPU BEACH 260.2	MAX	92	89 75	89 72	90	90 70		92	91 68	91	91 72	92 71	90	91 74	90 70	93	92 70	89	93	92	92 68	94	94	88	90	92 65	91 67	90	90 66	95 65	89 67	89	91.0
KULA SANATORIUM 267	MAX	76 59	77	78 60	74 59	73 60	73 59	72 59	73 59	74	74 61	74 63	79 63	76 62	75 61	75 60	74 61	76 59	75 58	74 59	75 60	75 57	75 58	71 59	74 55	74 55	74 54	73 54	72 55	75 56	74 57	75 57	74.5 58.7
LAHAINA 361	MAX	88	88 72	88	87	92 72	87	88	89	86	86	87 72	89 74	89	88	88	88	92	89 72	89	91	90	90 70	87 70	87 68	87 67	86 68	87	86 70	86 69	88	87	88.1
		, , ,		301			. •1		•	1			ce No	tes Fol	lowing				-1	_		,		_									

Continued										$\mathbf{D}^{F}$	IIL.	Υ '	TE	MF	PEF	RΑ'	ΓU	RE	S												NAII BOTOB	ER	196
																Day	of Mo	nîh															erage
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
ATLUKU 392	MAX MIN	90 68	90 72	89 72	88	89 69	89 73	88 73	87 69	92 72	88 73	87 73	90 73	89 76	89 70	87 73	87 71	87 73	86 73	67 72	88 72	88	88 72	69 71	89 71	87 72	88 65	8 8 6 8	88 70	86 72	86 72	88 74	88.
ISLAND OF HAWAII																																	
11NA 214	MAX MIN	86 67	89 70	8 8 71	85 66	87 65	86 68	84 67	86 64	87 64	67 67	86 70	8 8 70	87 68	84 65	87 69	88 66	86 67	86 70	85 67	84 67	63 64	82 65	84 66	85 65	84 63	85 64	84 64	84 67	84 67	85 66	86 68	65 66
AWAII VOLENS NP HQ 54	MAX MIN	74 57	73 60	73 57	75 52	74 57	73 56	74 60	72 52	75 53	74 54	76 62	71 62	74 60	75 56	73 58	77 54	75 54	71 57	72 56	68 57	52	71 57	62 52	70 52	71 53	71 51	72 53	71 56	70 56	70 54	73 54	72. 55.
LO WB AIRPORT 87	MAX MIN	88 70	87 70	87 69	87 68	87 69	86 68	86 69	87 66	87 67	67 66	84 74	87 75	87 70	87 68	87 69	86 68	86 67	86 69	85 71	84 72	83 69	81 69	84 67	84 65	85 67	85 66	85 66	85 69	65 67	85 68	85 68	85 68
A1NAL1U 73.2	MAX MIN	81 66	84 68	84 68	82 65	78 65	82 66	82 66	82 64	80 65	81 67	84 69	85 69	63 68	79 68	62 67	79 67	81 65	80 66	82 66	82 65	82 64	80 65	81 65	82 62	80 63	83 61	8 2 6 2	81 63	82 62	83 63	82 65	81 65
MUELA 192.2	MAX	81 54	83 53	84 57	81 54	81 57	7 <b>7</b>	78 55	80 54	81 54	80 53	80 56	82 58	83 60	78 55	80 53	81 54	80 57	75 58	76 58	74 60	73 60	73 56	76 56	78 50	75 47	81 45	80 48	75 60	75 60	76 52	78 56	78 55
MUELA AIRPORT 191	MAX MIN	80 52	81 54	83 58	78 54	77 59	80 56	80 54	79 49	79 44	77 44		61 60	61 59	78 53	60 52	79 54	78 51	78 50	77 51	76 49	77 58	75 54	74 53	76 49	76 48	80 45	79 49	79 52	76 50	76 49	77 49	78 52
29 LAA	MAX MIN	87 68	86 70	87 69	88 69	84 67	84 67	84 67	88 65	88 65	89 65	88 69	67 67	87 67	87 67	89 68	89 67	88 67	8 8 6 7	86 68	86 68	86 68	87 68	82 67	86 64	82 64	87 65	87 65	87 65	86 67	86 66	85 68	8 6 6 6
ALAKEKUA 26.2	MAX MIN	82 66	83 68	84 67	83 66	78 66	82 67	62 65	85 65	80 65	82 67	84 68	86 69	83 69	79 67	8 2 6 8	81 67	82 66	82 66	8 2 66	82 65	83 66	80 65	82 65	81 64	79 65	82 63	83 64	81 64	81 65	82 65	82 67	6
HALA MISSION 175.1	MAX MIN	86 68	88 68	88 73	84 68	86 70	85 71	85 69	86 69	87 69	86 67	86 69	91 72	85 72	85 68	86 68	87 68	84 70	8 <u>3</u> 72	84 69	82 70	81 71	81 69	83 69	83 66	83 66	84 65	84 65	82 68	82 71	82 68	83 69	84 68
NA AIRPORT 68.3	MAX MIN	86 67	88 67	87 66	86 66	86 66	87 66	86 66	87 68	86 68	86 68	87 68	87 73	86 67	85 68	86	87 67	86 67	86 67	87 68	87 67	87 68	85 67	85 68	86 69	87 70		86 68	86 67	86 67	85 68	86 68	86
ILANI CAMP 79	MAX MIN	69 51	72 53	73 52	70 49	74 48	69 46	70 54	68 43	71 47	70 49	72 48	75 55		71 45	68 50	74 50	70 49	68 53		68 53	66 52	65 51	61 45	66 46	65 46	67 40	68 40	67 48	66 49	67 48	68 51	61
JNA KEA BEACH 98	MAX	89 73	89 71	88 75	85 72	8 8 7 4	88 73	90 73	88 72	87 73	8 6 72	92 76	88 76	87 74	87 73	91 72	86 73	89 73	91 75	88 76	92 70	96 77	96 72	87 69	88	87 69	67 67	87 69	86 71	88 74	8 <b>7</b> 71	89 73	88
UNA LOA SLOPE D85	MAX	53 37	52 37	50 38	53 40	56 42	57 40	55 36	56 39	56 38	54 38	53 40	54 39	58 40	59 39	56 39	55 38	55 34	56 38	53 37	54 36	55 36	51 37	50 35	54 33	56 33	58 34	62 37	58 40	56 39	55 36	56 34	5
DUNTAIN VIEW 91	MAX MIN	81 60	81 65	81 64	83 63	84 61	84 61	82 66	81 60	84	82 61	86 61	81 66	81 68	81 62	8 2 6 2	84 62	84 61	81 61	81 62	78 65	78 64	80 64	74 60	78 58	80 58	81 59	81 58	8 2 6 2	78 61	79 61	78 62	83
AALEHU 14	MAX MIN	84 72	86 70	85 71	85 70	85 69	85 69	85 69	83 67	84 67	84 68	85 71	85 71	84 70	84 70	83 71	85 71	85 70	84 70	84 70	84 70	84 68	85 71	76 69	82 73	83 69	83 69	84 68	84 68	83 71		81 65	69
D≺ALA 223	MAX MIN	84	87 70	65 72	84 70	85 69	85 71	85 71	85 70	81 67	86 69	85 71	90 73	85 72	85 73	87 71	85 63	85 70	85 74	85 70	80 69	85 69	82 69	82 71	83 69	83 73	8 2 6 8	83 68	84 68	83 68	84 63	84 70	84
PIHIHALE 2 24.1	MAX MIN	86 63	86 66	78 65	77 63	82 63	83 63	84 62	82 63	82 65	84 68	84 68	82 70	83 66	81 66	83 65	82 65	79 64	80 62	82 63	80 62	80 62	78 62	83 61	80 60	81 59	80	81 62	81 62	80 59	79 60	82 63	81 63
AHALA 21	MAX MIN	83 64	85 68	80 68	83 64	83 64	83 64	84 69	82 65	83 64	81 64	85 65	82 70	83 73	83 65	8 1 6 4	85 66	84 63	82 67	82 66	85 70	83 64	85 64	75 62	82 64	82 64	83 64	83 63	84 64	84 64	82 65	83 65	62
POLU POINT USCG 159.2	MAX MIN	90 74	89 75	91 77	89 74	8 8 7 3	86 73	86 74	86 74	89 74	88 74	88 74	90 77	90 74	89 72	85 74	89 73	89 73	85 73	85 71	85 71	85 71	86 71	68 71	86 71	85 71	85 70	86 70	85 72	85 72		85 72	87 72

# **EVAPORATION AND WIND**

Station																Day	Of M	onih															4.6
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
ISLANO OF KAUAI																																	
LIHUE W8 AP 1020.1	EVAP WINO MAX MIN		117	100	94	58	88 94	64 95	67 95	54 87	53 86	53 90	93	.23 60 95 72	68 97	71 95	72 96	71 83	120	162 91	8.8	157	86 91	66 91	66 92	91	55 91	54 91	174 89	100	107	95 92	90.9
ISLANO OF OAHU																																	
HONOLULU ORSERV 702.2	EVAP WINO MAX MIN		25 78		15 99	12 95		22 96		.17 12 96 72	. 27 28 97 76	12 95	35	13	18	16 96	7	12 84	34 93	41 94	92	36 91	32 91	16 93	19 93	23 94	15 95	17 95	18	21 86	23 92	94	707 93.2
ISLANO OF HAWAII																																	
HILO #8 AlRPORT 87	EVAP WINO MAX MIN	104	88	91	48 92	52 93	.23 48 87 67	33 88 70	91	.25 64 88 66	.12 60 85 64	.05 56 83 73	.14 42 85 72	.16 46 87 70	34 86	88 91	.22 52 91 68	90	90	90	87	41 90	35 90	42 89	37 88	52 90	36 89	90	42 86	87	26 83	88	1546 88.4

# STATION INDEX

	ION STON	AGE 1	TUDE	NOIL	T	SERVA IME A TABLE	ND			NO.	N O	MGE I	TUDE	MOIT	OBSER* TIME TAB	AND	
STATION	DIVISIO	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	PRECIP EVAP.	SPECIAL	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LONGITUDE	ELEVATION	TEMP.	EVAP. SPECIAL	OBSERVER
ANAHDLA 1111 A BRYDESWOOD STA 985 A EAST LAWA1 934 A EKW 3 RESERVOIP 1094-1 ELEELE 927 ALAULA 1110 A	0140 02 KDLOA 0145 01 KAWAIHAU 0240 02 KDLOA 0450 02 KDLOA 0465 02 KAUDA 0470 02 KODA 0470 02 KODA 1070 01 KAWAIHAU 1070 01 KAWAIHAU 1170 01 KAWAIHAU 2161 03 WAIMEA	2 21 5 1 22 5 2 21 5 2 21 5 2 22 2 2 21 5 1 22 6 2 21 5 1 22 6 2 21 5 2 21 5 2 21 5 2 21 5 2 21 5 2 21 5	9 159 19 6 159 32 5 159 30 6 159 22 4 159 35 7 159 19 8 159 26 5 159 28	720 440 350 163 253 490 1218	3	7A 7A 7A 6A 7A 6A	000	MC BRYDE SUGAR CO. LINUE PLANTATION CD MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD LINUE PLANTATION MC BRYDE SUG CO LTD CROWLE FAPM CO LTO SORDVE FAPM CO LTO SILNUE PLTN CO LTD KEKAMA SUGAR CO LTO	LANAI CITY 672 LANAIHALE 684 MAMANA 694 MALAUEA 676 WAIAKEAKUA 685	3461 5286 5301 5704 46012 9021	OI LAHAINA OI LAHAINA OI LAHAINA OI LAHAINA	1 20 1 1 20 1 1 20 1 1 20 4	7 157 00 156 55 9 156 53 3 156 55 6 156 55 7 156 52	1646 30 1620 3370 1430 1135 2040	7A 7A W1 M0 W1	2 4 4	DOLE COMPANY OOLE COMPANY DOLE COMPANY DOLE COMPANY ODLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
ILIILIULA INTAKE 1050 INTAKE WAINIMA PC 1086A KALIMIWA1 PES 1131 A KANALDHULUMULU 1075 KANEHA RESERVOIR 1092 A KAPAA STABLES 1104 A	2222 02 LIMUE 2227 01 HANALEI 3099 0 WAIMEA 3104 01 KAWAIMOU 3159 01 KAWAIMOU 3782 01 KAWAIMAU 3782 01 KAWAIMAU	2 22 0 1 22 0 1 22 1 3 22 0 1 22 0 1 22 0 1 22 0 1 22 0 1 22 1 2 2 1 2 2 1 2 2 1 3 2 1 2 1 2 2 1	2 159 28 159 34 1 159 26 8 159 40 159 22 5 159 20 6 159 19 8 159 43 3 159 25	1070 690 400 3600 800 175	9 8 A	7A W1 7A 8A 7A 7A 7A 8A 6A 7A	AL D. B.	LIMUE PLTN CO LTO  S MC BPYDE SUG CO LTD  KILAUEA SUG PLTN CO KANALOHULHUEU R. S. LIMUE PLANTATION LIMUE PLTN CO LTO CHUE PLTN CO LTO KEKAMA SUGAR CO LTD KILAUEA SUG PLTN CD YILAUEA SUG PLTN CD YILAUEA SUG PLTN CO	HAELAAU 477 HALEAKALA B E S 434 HALEAKALA PANCH 432 HALEAKALA R5 338 HALEAKALA SUMMIT 338.4 HALEHAKU 492.2	0790 0995 0999 1004 1008 1016	01 MAKAWAO 02 MAKAWAO 02 MAKAWAD 02 MAKAWAD 01 MAKAWAO 01 MAKAWAO	1 20 1 20 2 20 2 20 1 20 1 20	7   156 36 1   156 18 10   156 19 16   156 15 33   156 16 15   156 17 12   156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	7A 6A 8A 8A 8A 8A	000	ULUPALAKUA RANCH MAUI PINEAPPLE CO. S MAUI PINEAPPLE COMPANY U OF HAWAII EXP STA MALEARIA NACH CANCH HALEARIA NACH CANCH U OF MICH MT HAALA OBSY PHIL SCOTT MAUI PINEAPPLE CO. HAWAIIAN COM + SUG CO HARPY HASSGAMA
KOLOA MAUKA 994 KULOKO RES 1137 A KUKJJULA 935 LIHUE VARIETY STA LIHUE VARIETY STA LIHUE WB AP 1020+1 R	4568 01 HANALEI 4650 0 WAIMEA 4735 0 WAIMEA 4742 0 KOLOA 4750 0 KOLOA 4750 0 KOLOA 4550 0 KOLOA 5560 0 LINUE 5570 0 LINUE 5590 0 LINUE	3 22 0 2 21 5 2 21 5 1 22 1 2 21 5 2 22 0 2 21 5	2   159   41 4   159   46 5   159   28 8   159   29 1   159   23 4   159   23	36 240 640 73 10 37 20		7A 8A 7A 7A 6A 7A 7A MID 6	e L	U S COAST GUARD KEKAHA SUGAR CO- KEKAHA SUGAR CO LTO GPOVE FARM CO LTO GROVE FARM CO LTO FILAUEA SUG PLTN CO HC BYPOE SUG CO LTD HAWAIIAN SUGAP PL ASSN LINUE PLTN CO LTO U S WEATHER BUREAU	HANA AIPPORT 355 HANAHULI 281 HOLUA CABIN 259.5 HDNOKOHAU 480 HONOKOHAU 493 HDNOLUA FED 49 494	1125 1148 1552 1882 1887 1914 1935 2208 2307	01 HANA 02 HAKAWAD 04 LAHAINA 04 LAHAINA 04 LAHAINA 05 HAKAWAD 07 HAKAWAD 08 HALUKU 09 LAHAINA		156 01 156 01 156 01 156 13 186 156 36 0 156 39 1 156 38 77 156 14 3 156 33 6 156 42	61 325 6930 870 135 6280 1100	11A 11A 7A MO MO 6A MO	k	HARPY MASECAMA AIRLINES KOALI PANCH HALEARALA MATL PAPK RGS MAUI PINEAPPLE CO MAUI PINEAPPLE CO STATE OIVISION OF PARES AMAC POPPERTYS  ECWARD CHANG
MANA 1026 M + M 1001 MOMIHI UPP CRDSS 1083 MOLOAA 1145 MOUNT WAIALEALE 1047 NIU RIDGE 1035	576 O	2 21 5 3 21 5 3 22 0 2 21 5 3 22 0 1 2 22 0 2 22 0 2 22 0	2 159 46 5 159 28 7 159 36 1 159 20 4 159 30 2 159 44 4 159 28	350 350 33 5146 1250	9A	8A 7A 9A M1D 7A 6A 7A	c	U S COAST GUAPO OLOKELE SUGAR CO KEKAMA SUGAR CD LTO GROVF FAPH COMPANY U S GEO SURVEY LIHUE PLANTATION CD. U, S. GEO, SURVEY KEKAMA SUGAR CO LTO LHUE PLIN CD LTO LIHUE PLIN CD LTO	KAHOMA INTAKE 374 KAHULUI WB AP 398 KALLILL 436 KALUA 446	2552 2572 4 2630 2679 3433 3576 3910 4091	04 LAMAINA 03 WAILUKU 01 MAKAWAO 01 MAKAWAO 04 LAMAINA 02 MAKAWAO 01 HANA 02 MAKAWAO	4 20 1 20 1 20 1 20 2 20 3 20 1 20 2 20 2 20	4 156 38 4 156 26 1 156 16 4 156 13 3 156 38 9 156 08 2 156 23	2000 48 2520 700	MID MID MC 7A 7A WI 5A MC BA BA BA	- v - v	PIONEEP MILL O LTD  U S WEATHEP BUREAU E MAUL 1PR CO LTD E MAUL 1PR CO LTD FOR MILL CO LTD KAUPD PAN'H HAWAILAN COM + SUG CD E MAUL 1PR CO LTD A. L. COPELL  HAWAILAN COM + SUG CD HAWAILAN COM + SUG CD
RESERVOIR 6 1004 A STABLE CAMP 1055.1 WAHIAWA 930 A	8155 DI HANALEI 8165 DI HANALEI 8205 DS WAIMEA 8273 DZ LIMUE 8694 DZ LIMUE 8944 DZ LIMUE 8949 DZ KOLDA 8958 DZ LIMUE 8966 DZ LIMUE	1 22 1 3 22 0 2 21 5 2 21 5 2 22 1 2 22 0 2 22 0 2 27 0	1 159 42 8 159 24 7 159 27 4 159 27 4 159 34 8 159 31 1 159 27 1 159 28	1660 329 420 740 215	64	6A 7A 8A 8A 7A MO 6A 8A	A.A.	MC 8PVDE SUG CD LTO PRINCEVILLE RANCH KERAHA SUGAR CO LTO GROVE FARM CD LTO GROVE FARM CO LTO LIMUE PLANTATION CO. MC 8RYDE SUG CO LTO LIMUE PLANTATION CO. LIMUE PLANTATION CO. LIMUE PLANTO CO.	KIPAHULU 258 KUKUI 380 KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372 LUPI UPPER 442 MAMINAHINA 466 MOKUPEA 475	4634 4887 5003 5006 5177 5404 5408 5665 5715	OI HANA O HANALNA OZ MAKAWAO OZ MAKAWAO OZ MAKAWAO OZ LAHAINA OZ LAHAINA OZ LAHAINA OZ LAHAINA	1 20 2 20 2 20 4 20 4 20 1 2D 4 20	9   156 04 4 156 35 17 156 19 2 156 22 3 156 41 1 156 37 1 156 39 3 156 15 7 156 40	260 5788 2520 3004 45 1280 220 1240 715	7A 7A 7A 7A 7A VAR 7A MO 7A	k c	KIPAHULU CATTLE COMPANY S MAUI PINEAPPLE CO KENNETH WILLEY KULA SAYATORIUM PIONEEP MILL CO LTD PIONEER MILL CO LTD PIONEER MILL CO LTD F MAUI IMP CO LTD PIONEER MILL CO LTD S MAUI IMP CO LTO S MAUI PINEAPPLE CO
WAIMEA 947 WEST LAWAI 931 A ISLANO OF DAHU AIEA FIELD 625 761 A BERFTANIA PUMPING STA	9253 03 WAIMEA 9467 02 LIHUE 9629 03 WAIMEA 9955 02 KOLDA	3 21 5 2 21 5	A 159 31 5 157 57 9 157 51	20 210 455 20		8A 7A 8A 6A 7A 9A 6A	c	KEKAMA SUGAR CD LTD LIHUE PLANTATION WAIMEA SUG MILL CO MC BRYDE SUG CO LTD  WATAHOLE WTR CD LTD BOAPD OF WTR SUPPLY DEL MONTE CORPORATION	MAKALELE -FLD 60-497 / OLINDA 332 OLINDA 332 OLOWALU 296 OLOWALU 296 OLOWALU GULCH 377 PAAKEA 355 PAIA 406 PANILEIHULU 259-2 PAUWELA 490 POHAKEA BPIDGE 307-2	7040 7059 7066 7194 7566 7674 7857 8060	04 LAHAINA 04 LAHAINA 04 LAHAINA 05 HANA 07 HANA 08 HANA 01 HAKAWAD 03 WAILUKU	4 21 1 20 4 20 1 20 1 20 2 20 1 20 2 20 1 20 3 20	22 156 36 8 156 17 19 156 36 11 156 36 19 156 07 15 156 23 11 156 08 15 156 19 156 31	340 4121 800 1260 170 3570 485 167	VAR VAR 70 MO 6A 6A WI 7A 6A	ļc	MAUI PINCAPPLE COMPANY MAUI CO WATER DEP PIONEER MILL CO. PIONEER MILL CO. FOR MAUI IPP CO LTO E MAUI IPP CO LTO E MAUI IPP CO LTO E MAUI IPP CO LTO E MAUI IPP CO LTO E MAUI IPP CO LTO E MAIDO RANCH CO. MATEROT PINCAPPLE CO. WAILUKU SUGAR CD
HONOLULU OBSERV 702.2 WHONOLULU WBFC 703 R	0340 01 KOOLAUPOKO 0350 01 KOOLAUPOKO 0438 02 HDNOLULU 050 03 EWA 096 02 HDNOLULU 1386 05 WAIALUA 1541 03 EWA 1911 03 EWA	3 21 1 2 21 2	6 157 47 1 157 50 1 158 02 3 157 54 3 158 00 4 158 06 9 158 00 0 157 55	20 13 565 42 17 127- 222	9 MID	MID	C C C C J	BIOLOGICAL SCIENCE DEPT U OF H MADINE LAB J. L. BANNING EWA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA SUGAR CO, INC. H. V. VON HOLT U 5 COAST 4 GEODETIC U 5 WEATHER BUREAU	PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2 TWIN GATE5 261.3 UKULELE 333	8543 8543 8553 8688 8742 8744	01 HANA 04 LAHAINA 03 WAILUKU	2 20 4 20 5 1 20 4 20 5 1 20 6 4 20 6 4 20 6 20 6 20	0 156 13 5 156 38 3 156 27 6 156 03 4 156 25 6 156 23 8 156 15	6150 2980 2500 60 2160 85 1310 5230 75	MO MO 7A 8A VAR MO 7A		STATE DIV OF FORESTRY E MAUI IRP CD. LTD PINNEEP MILL CO LTO HAMAIIAN COM + SUG CO EAST MAUI IRRIGATION CO HAMAIIAN COM + SUG CO KAONOULU RANCH HALEAKALA RANCH CO PIONEER MILL CO LTD ULUPALAVUA RCH CO LTD
KAHUKU 912 KAILUA FIRE 5TA 791.3 KALIHI RES SITE 777 KAMEHAME 724.7 KANEOHE MAUKA 781	1922 02 HONOLULU 2249 02 HONOLULU 2269 02 HONOLULU 2269 01 KOOLAULOA 2663 01 KOOLAULOA 2663 01 KOOLAUPOKO 3056 01 KOOLAUPOKO 3113 01 KOOLAUPOKO 3113 01 KOOLAUPOKO	1 21 2	8 157 50 8 157 43 1 157 54 1 157 57 4 157 45 3 157 50 9 157 41 5 157 49	910 1380 25 10 25 10 25 10 25 10 25 25 25 25 25 25 25 25 25 25 25 25 25	9A 5 7A	M1D 8A 8A M1D 7A 8A	0 0 01 10	ESSA-WEATHER BUREAU H S P A EXP STATION MSS, MILLIE ZAPATA WALAHOLE WIR CD LTD KAHUKU PLIN CO KAILUA FIRE STATION BOAPO OF WIR SUPPLY HAWALI NATIONAL GUARO STATE HOSPITAL KANEOHE RANCH CO	WAIEMU CAMP 484 WAIHEE VALLEY 482 WAIKAMO1 449 WAIKAMO1 DAM 336 WAIKAPU 390 WAILUA IKI 348 WAILUKU 392	9275 9315 9332 9335 9376 9460 9484	04 LAHAINA 03 WAILUKU 08 WAILUKU 01 MAKAWAO 01 WAILUKU 07 WAILUKU 07 WAILUKU 08 WAILUKU	1 20 1 1 20 1 3 20 1	5 156 31 7 156 32 2 156 12 9 156 14 2 156 31 8 156 09 4 156 30	580 320 300 1200 4320 470 2630 200	6A WM VAR 6A 8A 8A		PIONEEP MILL CO LTD WAILUKU SJEAR CO WAILUKU SJEAR CO C MAUT JRO CO LTD MAUT COUNTY WITE DEPT WAILUKJ SHEAR CO SAST HAUT IRRIGATION CO ST. ANTHONYS BOYS SCH HALEARALA BRINCH CO
KAPALAWA 773 A KAWAIHAPAI 841 A KAWAI 1K1 1NTAKE 880.2A KAWELA WAUKA 900.3 KEMOD CAMP 8 855 A KOOLAU DAM 833 LUALUALEI 877 TUNNEL A	3220 01 KOOLAULOA 3268 02 MONDLULU 3734 05 WAIALUA 3741 05 WAIALUA 3825 02 KOOLAUPOKO 4318 05 WAIALUA 4766 05 WAHAWA 5647 0 WAIANAE	4 21 2	1 157 52 5 158 11 4 157 59 0 158 00 3 158 05 0 157 58 6 158 08 9 158 08	10 614 20 1180 1050 725 1160 113	74	8A 7A W1 7A 8A 7A	D . W . O .	GEDRGE H. SWIFT KAMEHAMEHA SCHODL5 WAIALUA SUGAR CO., INC WAIALUA SUGAR CO., INC, HAWAII NATIONAL GUARD WAIALUA SUGAR CO., INC C + F OFFICER HEGG USA AMMUNITION DEP U 5 NAVY	AWINI 182.1 EAST HONOKANE 183.2 HAINA 214 HAKALAU 142 HALEMAUMAU 52	0190 0450 0540 0905 1033	OI HAMAKIIA	5 19 1 1 20 1 1 20 0 2 19 9 3 19 9 2 19 6	0 155 43 7 155 43 6 155 28 4 155 08 4 155 17 6 155 24 6 155 28	5220 1870 4240 460 105 3648 5770 9220	7A 7A 7A 7A MO MO MO	c	GREENWELL RANCH KOHALA DITCH CO LTO KOHALA DITCH CO LTO HONCKAA SUSAP CO PEPEEKEO SUGAP CO HAWAII NAT PAPK KUKAIAU PARCH CO STATE DIV. OF PAPKS HAWAII NAT PAPK
LULUKU 781.7 LUNALILO HOME 724.2 HARAHA KAI 796 A MAKAHA VALLEY 800.1 A HAKAPUU POINT 724 MANDA TIZ MANDA TIZ MANDA TINNEL 2 716 MAUNAHILI 787.1 MOANALUA 770	5655 01 KOOLAUPDKO 5675 02 HDNOLULU 5766 04 WAIANAE 5781 04 WAIANAE 5800 02 HONOLULU 6122 02 HONOLULU 6122 01 KOOLAUPDKO 6395 02 HONOLULU 6553 04 WAIANAE	1 21 2 2 21 1 4 21 2 6 21 2 2 21 1 2 21 2 2 1 2 2 2 2 2 1 2 2 2 2 2 3 2 2 2 3 2 3 2 3 2 4 2 1 3	9 158 12 9 157 39 9 157 49 0 157 48 1 157 46 1 157 54	40 2 160 538 220 650 410 20	BA BA	7A 7A 8A 8A 8A MID 9A	N N N	MILNOR LUM LUNALID HOME CAPITAL INVEST CD CAPITAL INVEST CO U 5 CDAST GUARD MRS.JOHN M.BEAUMONT ROARD DE WTR SUPPLY EXP. STA. H.S.P.A. JOHN A ROXBURGH FEOERAL AVIATION ADM.	HAWI 168 HILO WB AIRPDRT 87 HOLUALOA 70 HOLUALOA BEACH 68 AONAUNAU 27 HONOHINA 137	1 1339 1 1492 1 1557 1 1562 1 1665 1 7 0 1	O KAU OI N KOMALA OI N KOMALA OI N KOMA OI N KOMA OI N KOMA OI N KOMALA OI N KOMALA OI N KOMALA OI N KOMALA OI N KOMA	2 19 4 19 1 4 19 1 4 19 1 2 19 4 19 1 2 19 1	4 155 50 3 155 04 8 155 55 7 155 59 7 155 53 6 155 04 1 155 09	3971 600 27 3220 14 1089 300 800 1400	7A M10 M10 M0 7A 7A 7A 7A	MIDC .	KOHALA SUGAR CO J U S WEATHER BUREAU STATE DIV OF FORESTPY VADIOUS PANCH HANDS CHARLES HUA PEPEREO SUGAR COMPANY KOMALA DITCH CO LTO PEPEREN SUGAS CO.
PUNALUU 884 A	6928 02 HONOLULU 4 7150 05 WAIALUA 7664 02 HONOLULU 7933 03 EWA 8126 02 HONOLULU 4 8172 05 WAHIAWA 8 8310 01 KOOLAULOA	2 21 2 21 2 2 1 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 1 5 2 1 2 2 2 1 2 2 2 1 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 1 2 2 2 2 1 2 2 2 2 1 2 2 2 2 1 2 2 2 2 1 2 2 2 2 1 2	1 157 49 1 157 5D 4 158 02 0 157 46 1 157 48 5 157 43 8 158 01 5 157 54	1048 417 1060 995 1640 240 700	7A	MID VAR 7A MID MID 7A 8A 8A	0 0	BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY WAIALUA SUGAR CO INC BOARD DF WIR SUPPLY BOARD OF WIR SUPPLY JAMES HUMENO MRS ALFREO FRANCO. JR. PINCAPPLE RESEARCH INST KAHUKU PLIN CO	HUEHUE 92.1  KAALA IKI 12  KAAWALDA 29  KAHIAWAI 3.4  KAINALIU 73.2  KALAPANA NO 1 67.8  KAMAGA NO 2 5  KAMUELA 192.2	2249 2327 2512 2751 2894 3048	03 KAU 03 KAU 04 N KONA 03 KAU 04 N KONA 02 5 HILD 03 KAU 01 5 KOHALA	3 19 6 4 19 4 4 19 4 4 19 3 3 19 6 4 19 3 2 19 6 1 20 6	8 155 34 0 155 55 8 155 46 2 155 56 0 155 02 2 155 40 1 155 40	8190 1960 1340 1330 3700 1500 10 1375 2670	7A 7A VAR WI 6A 6A		STATE DIV OF FORESTRY STATE OIV OF FORESTRY HIEMUE RANCH  HUTCHINSON SUGAR CD CAPTAIN COOK COFFEE CO- RUSSELLP, S MITH K ONA EXPEDIMENT STA HAWAII YOUCANDES NAT PK HAWAII YOUCANDES NAT PK HAWAII AN RANCH CO PARKEP RANCH
ST STEPHENS SEM 788 TANTALUS PEAK 780 TANTALUS 2 780.5 UNIV OF HAWAII 713 WAHIAWA OAM 863 WAIAHOLE 837 WAIALAE KAMALA 715 WAIALAE KAMALA 715 WAIALUA 847	8316 02 HONOLULU 8600 01 KOOLAUPOKO 8730 D2 HONDLULU 8738 D2 HONOLULU 8815 02 HONOLULU 8945 05 WAHAWA 9185 02 HONOLULU 9185 02 HONOLULU 9195 05 WAJANAE	2 21 1 1 21 2 2 21 2 2 21 2 2 21 1 5 21 3 1 21 2 2 21 1 4 21 2	2 157 47 0 157 49 0 157 50 8 157 49 0 158 03 8 157 53 7 157 47 5 158 07	1325 7- 85=	5 7A	7A 7A 7A 8A 7A 8A 7A 8A	4 0 4	NAT MEM CEMETERY REV R CULLINAN BOARO DF WATER SUPPLY R. E. WHITE DEPT OF GEOSCIENCE WAIALUA SUGAR CO., INC WAIAHOLE WTR CO LTD SPENCER TINKER WAIALUA SUGAR CO., INC CAPITAL INVEST CO.	KEAAU 92 KEA1WA CAMP 22.1 KEALAKEKUA 26.2 KEANAKOLU CAMP 124.2	3510 3770 3872 3925 3977 4098	01 HAMAKUA 02 PUNA 03 KAU 04 S KONA 02 HAMAKUA	2 19 6 1 20 0 2 19 3 3 19 1 - 19 3 2 19 5	0 154 52 1 155 09 5 155 39 8 155 02 4 155 29 0 155 21	2665 2140 291 1123 1080 280 1700 1450 5280	6A VAR 6A WI 8A 8A 8A 8A	-	HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARD OF WATEP SUPPLY  SHIGEO MASUYA HONOKAA SHGAR CO PUNA SUGAP CO HAWAIIAN AGRI. COMPANY MICS. JMY GPERMELL STATE DIV. OF FORESTPY
WAIANAE MAUKA 803 A WAIAWA 836 A WAIKAKE 885 A WAIKIKI 717.2 WAILUPE RESV. 723.2 A WAILUPE VLY 5CH 723.6 WAIMANALO 794	9238 0 WAJANAE 9261 03 EWA 9340 01 KOOLAUPOKO 9397 0 HONOLULU 9495 0 HONOLULU 9500 D HONOLULU 9501 01 KOOLAUPOKO 9593 03 EWA 9738 03 EWA 9980 02 HONOLULU	21 2 1 21 3 21 2 21 1 21 1 2 21 1 1 21 3	9 158 09 8 157 56 0 157 53 6 157 45 8 157 45 1 157 44 8 158 04	800 760 170 180 60 428	8.4	W1 MO W1 8A WI 8A 7A 8A M1D	2 2	CAPITAL INVEST CO MAIAHOLE WIR CO LTD MAIAHOLE WIR CO LTD HONOLULU 2DD BOAPD DF WIR SUPPLY MAILUPE VALLEY SCHOOL ST DIY WIFF + LAND DEV MAIALUA SUGAR CO., INC DAND SUGAR CO. BOARD OF WIR SUPPLY	KOHALA 179+1 A KOHALA MAULILI 176 A KOHALA MISSION 175+1	4675 4670 4675 4675 4680 4695 4764 4765 4815	01 N KOHALA 01 N KOHALA 01 HAMAKUA 0- N KONA 04 N KONA 01 HAMAKUA	1 20 0 2 19 4 1 20 1 1 20 1 1 20 0 1 20 0 1 20 0 1 20 0	7 155 45 4 155 38 4 156 09 4 155 47 3 155 47 4 155 48 5 155 38 9 156 01 155 60 155 21	3840 1925 1490 309 960 53T 720 17 15 840 960	7A 7A 7A WI 8A 8A 6A		KOMALA DITCH CD LTD  STATE DIV OF FORFSRY WALKA FEA SUGAR CD KOMALA SUGAR CD KOMALA SUGAR CO HOMIKAA SUGAR CO HAWAITAN AIPLINES FORA VILLAGE RESORT HIL HAMAKIAN MILL CO
KALAUPAPA 563 KAMALD MAUKA 542.6 KAUNAKAKAI 536 KAUNAKAKAI MAUKA 536.5 KEONELELE PENS 551	2896 01 MOLOKAI 3046 01 MOLOKAI 3344 01 MOLOKAI 3499 01 MOLOKAI 4939 01 MOLOKAI 6138 01 MOLOKAI 6138 01 MOLOKAI 6190 01 MOLOKAI 654 01 MOLOKAI 654 01 MOLOKAI	1 21 0 1 21 0 1 21 0	4   156 52 6   157 01 6   157 01 2   157 12 9   157 02 4   156 48 8   157 13	12 70 560 878 20 1075 450	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	8A 6A WK 7A 8A 9A 8A 6A		KALAUPAPA SETTLEHENT W. J. CARSTEN MOLDKA1 RANCH LTD MOLDKA1 GRERAL MOSPITA MOLDKA1 GRERAL LTD. DEL MONTE CORPORATION H S.P. A LIBBY MCHILL + LIBBY ALOHA AIRLINES PULOHOKU SANCH	KUKUIHAELE MILL 206 AKULAN1 CAMP 79  KULAN1 MAUKA 76  KULAN1 SCHOOL SITE 78 A  KULAN1 SCHOOL SITE 78 A  LALAMILO FILD OFF 191-1  LAN1HAU 68-2  LAVA TREE PARK 66-1  MANUKA 2  MANNA KA B BF 6M 98	5018 5021 5260 5330 5460	OI HAMAKUA IN HAMAKUA OZ S HILO OS N HILO OS S HILO OZ S HILO OZ S HILO OZ S HONA OZ PUNA OZ PUNA OZ PUNA OZ PUNA OZ KOHALA OH KONA OH KONA OH KONA	5 19 3 2 19 3 1 20 0 4 19 4 2 19 2 3 19 0	3 155 18 5 155 27 5 155 20 1 155 41 0 155 58 9 154 54 7 155 50 1 155 50	300 5170 8300 5735 2615 1530 650 1760	6A 8A WI WI 8A	c	HONGKAA SUGAR CO HONGKAA SUGAR CO ST DEPT DF SOCIAL SEP U S WEATHFP BUREAU ST DEPT OF SOCIAL SEP STATE DEPT OF L = N PE KONA EXPEPIMENT STATO STATE DIV. OF PAPES HAUNA FEA BEACH HOTEL U S WEATHFP BURPAIL

TRAINAGE CODE: KAUAL: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-IND DYTRA-ISLAND DIVISIONS) LANAI: 1-IND DYTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN 4-WESTERN 5-CENTRAL

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, p. 0. Box 3650, Bonoiulu, Hawaii, or to any Neather Bureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWAII"

DIWESIONAL DRITS. Unless otherwise indicated, disensional units used in this bulletin are. Temperature in 'F., precipitation and evaporation in inches, and wind suverent it miles. In 'Supplemental Data" table directions entered in figures are tens of degrees. Resultant wind in the vector aum of wind directions and speed divided by the number of observations.

OBSERVATION TIME: Data in the 'Wonthly Extremen', "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours ending attime of observation unless indicated otherwise by reference letters in the Station Index. The Station Index shows observation time in local estandard time.

NORWALS for all stations are climatological standard nermals based on the period 1931-1960

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this builetin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual issue of this publication IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

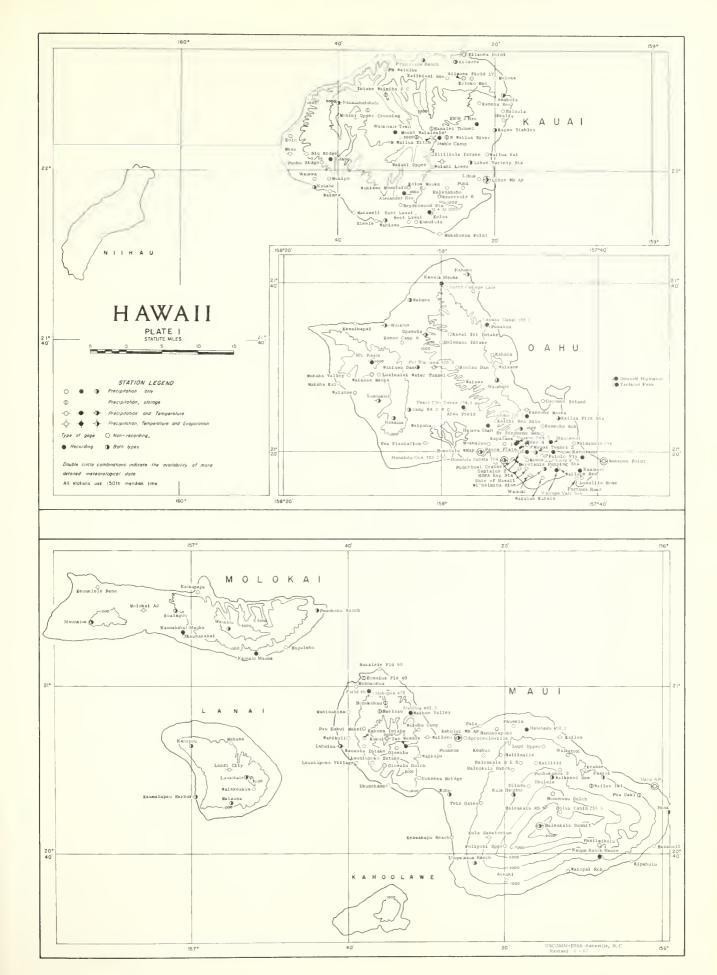
- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfail and Snow on Ground" table, and the Station index
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- . And also on an earlier date or dates
- Righest observed one minuto windspeed This station is not equipped with an instrument to measure fastest mile data.
- · Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station mame in "Climatological Data" table, "Daily Precipitation" table; and "Station Index", indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bulletims for dates of measurement. Where gages are read only once monthly, measurements made on the first of a such are credited to the last day of the preceding month
- H Adjusted to a full month
- J "Supplemental Data" table
- Wome or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record
- R Amounts from recording gage
- T Trace, an amount too small to measure
- V Includes total for previous month
- IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING
- AR Observation made after rain
- In Special Column of Station Index indicates Recording Rain Gage Station. However, precipitation values are processed for special purposes, and are published into in the "Govern's precipitation Data" builetin. If daily amounts are published in "Clinicalogical Data" builetin they are from a megnarie non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the 'Rourly Precipitation Data" builetin.
- MO Gage read once monthly, usually on the last day
- OC Gage readings at periods varying from a few weeks to several months.
- 3 Storage Precipitation Station Precipitation measurements, made at irregular intervals, are published in the December lesue, or as delayed data in the June lesue of this publication.
- 35 Observation time is near supect
- VAR Observation time le variable,
- wi Gage read weekly or irregularly only
- WM Gage read weekly and last day of month
- Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; bowever, this reference indicates that the thermometers are exposed in a whelter located on the roof of a building

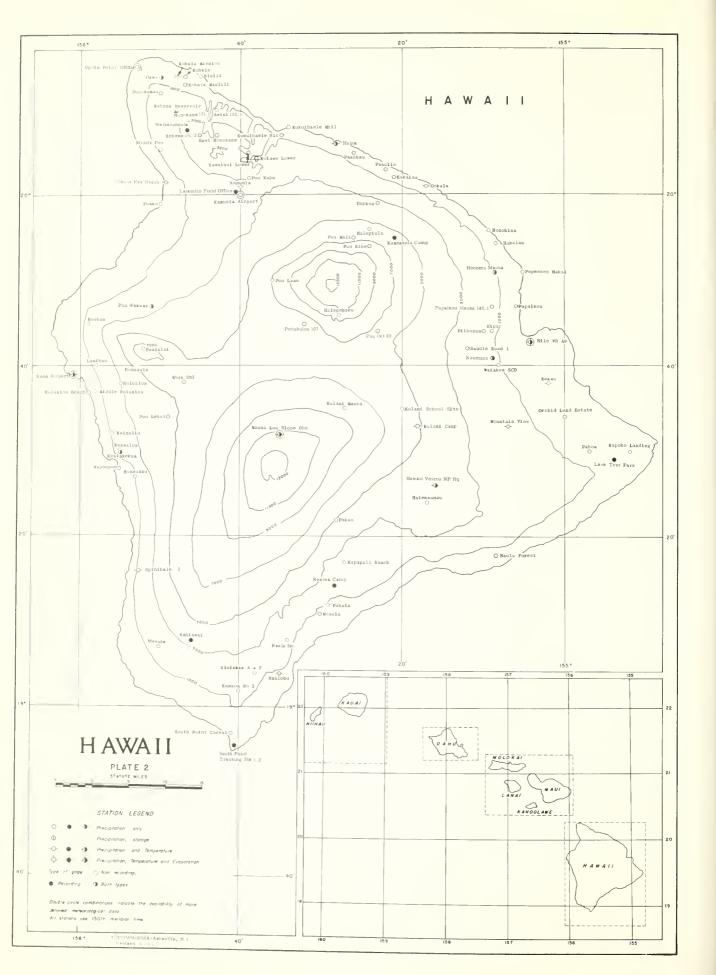
Stations appearing in the tables with no data were either missing or received too iate to be included in this issue.

General weather conditions in the U. S. for each month are described in the publications MONTRLY MEATHER REVIEW. CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, ail of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Weather Bureau stations may be found in the latest annual issue of Local Climatological Data, price 50 cents. These publications may be obtained from the Superlistedent of Documents at the address shown above.

Subscription Price 20 cents per copy, monthly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be east expanded to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be east to the Superintendent of Document of Doc











U.S. DEPARTMENT OF COMMERC

STRATION ENVIRONMENTAL SCIENCE SERVICES ADMIN ENVIRONMENTAL DATA SERVICE

HAWAII

NOVEMBER 1968

Volume 64 No. 11

# CLIMATOLOGICAL DATA

		-			Ter	nper	ature				N	o. of	Dava	-		AGI	?. D'	recip		w. Sleet		N	o. of	0
Station		Average Maximum	Average Minimum	Average	Departure From Normal	Highest	le le	Lowest	9	Degree Days	Ma	х.	Mi	n	tal	Departure From Normal	eatest Day	91	Total	x. Depth Ground		or More	or More	
* * *		Α×	ΑŽ	Ä	D <sub>e</sub>	Ħ	Date	Lo	Date	D <sub>0</sub>	30°	32°	32° Belo	0 80	Total	QÃ	ູ້ 	Da	- P	₩ 6	Date	.10		-
ISLANO OF KAUAI																								
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A	70.2	53.2 72.4M	61.7 78.3M		75 90	2		21+		0	0	0	0	7.69 15.58 10.37 12.20 9.14	3.92	5.09		.0	0		9		
CDLDA 936	Α														5.12	95	2.37	14	.0	0				
LIHUE W8 AP 1020.1 MANA 1026 N WAILUA DITCH 1051 PH WAINIHA 1115	A	81.0	70.3 68.0	75.7	1.2		12+	66	16+		0 2	0	0	0	8.62 7.50 14.34 19.75	4.09 5.45 9.78	4.08 3.05 9.31	13	.0	0		8	4	,
PUEHU RIOGE 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	A	83.0	63.8	73.4		87	27	60	30+		0	0	0	0	5.57 4.26 16.65 4.12	1.17	3.53 2.24 6.13 2.30	14 30	.0	0		4	2	2
ISLAND				73.2											10.07				.0					
* * * ISLAND OF DAHU																								
HONDLULU O8SERV 702.2 HONDLULU W8FC 703 KAHUKU 912 KANEDHE MAUKA 781 KODLAU DAM 833	R A	86.3 M	71.2 M 71.0	78.8 77.0	2.9	87	8+ 18+ 12	65			3 0 0	0	0	0 0	4.70 5.64 2.39 11.30 11.74	3.48 - 1.34 6.02 3.75	2.83 1.64 1.50 6.60 4.50	29 14 29	.0	0		4 5 14 11	1	
LUALUALEI 804 MAKAPUU POINT 724		85.2M 81.7	69.8M 73.8	77.5M		8.6	24+		5		0	0	0	0	* 6.14	3.85	3 <b>. 5</b> 5	30	.0	0		4	2	
NUUANU RES 4 783 DPAEULA 870 PALDLO VALLEY 718	Д	82.7	65.6	74.2	4.0				18		0	0	0	0	9.82 10.07 14.19	.51 5.06 3.08	7.14	29	.0	0		9		
PRI WAHIAWA 920.2 Punaluu 884 Wahiawa 0am 863 Waiahole 837	А А А		64.4M	74.3M			11+				0	0	0	0	1.87 9.18 7.00 12.85	1.02	4.50	30	.0	0				
WAIALUA 847 Waikiki 717.2	A	85.0	71.3	75.5	2.1		5+		22+		0	0	0	0	4.82	2.47	2.42	30	.0	0		3.	2	
WAIPAHU 750	А	00.1	,,,,			,	10.	00							4.78	2.22	2.44	0	.0				-	
ISLAND * * *				76.8											7.56				.0					
ISLANO OF MOLDKAI																								
KUALAPUU 534 Mapulehu 542 Maunalda 511 Molokai ap 524	A	84.0	69.2	76.6		87	13+	65	5		0	0	0	0	1.09 5.80 2.67 2.51	- 2.01 2.15 08	2.50 2.35 1.13	30	.0	0		1 1 2 3		
ISLAND				76.6							. !				3.02				.0					
* * * ISLAND DF LANAI																								
ANAI CITY 672	A	79.5	64.4	72.0	3.4	85	13	61	17		0	0	0	0	4.38	1.52	2.12	30	.0	0		3	3	
ISLAND				72.0											4.38				.0					
ISLAND OF MAUI																								
HALEAKALA 8 E S 434 HALEAKALA RS 338 HANA AIRPORT 355	Δ	66.1	45.7	55.9 77.5		7 <sub>2</sub>			28		0	0	0	0	16.05 15.86 12.78	9.81	13.63 14.10 9.98	29	.0	0		5 4 9	3 2 2	
HONOKOHUA 493 KAANAPALI AIRPORT	A	85.6	69.4	77.5		89	8		28+		0	0	0	0	3.18	14	1.80		.0	0		2	2	
(AHULUI W8 AP 398 (AILUA 446	Ŕ	88.3 80.7	66.4	77.4	2.4		13 19+		17+ 29+		12	0	0	0	4.86	3.34	2.37 7.80	28 29	.0	0		4	2	
KEANAE 346 KIPAHULU 258	Α					7-									19.80	.98 2.00	5.86		.0	0		10	3	
CULA SANATORIUM 267		74.4 87.1	56.8	78.1	1 • 2	77 91	19		23		0	0	0	0	2.15	1.08	2.00		.0	0		2	2	
AIA 406 NAILUKU 392		87.0	68.3	77.7	2.9	92			27+		7	0	0	0	4.25	1.34	3.80		.0	0		2	1	
ISLAND				72.9											8.53				. 0					
* * * ISLANO DF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO W8 AIRPORT 87 HUEHUE 92.1	κ Δ	84.4 71.0 84.3	65.8 53.9 68.1	75.1 62.5 76.2	3.1 1.7 3.0	75	14+ 8 7	63 50 65			0	0 0	0 0 0	0	4.51	- 3.47 - 5.67 - 3.15 - 2.10	1.50 1.97 3.85	15	.0	0 0		4 5 13	1 2 4	
KAINALIU 73.2	Д	81.3	64.1	72.7		83	12+	61	23+		0	0	0	0	2.01	- 2.26	1.36	15	.0	0		2	1	
KAMUELA AIRPORT 191		77.9	49.4	63.7		82	28+	42	24+		0	0	0	0	.77		. 35	30	. 0	0		2	1	

### CLIMATOLOGICAL DATA

HAWAII NOVEMBER 1968

					Ter	nper	ature											Precip	oitation				
											] 1	No. of	Day	s					Snov	v. Sleet		No.	of Day:
Station		Average Maximum	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	Degree Days	-	32° or Below	32° or Bolow		Total	Departure From Normal	Greatest Day	Date	Total	Max. Depth on Ground	Date	.10 or More	1.00 or More
KEAAU 92 KEALAKEKUA 26.2 KONA AIRPORT 68.3 KUKJIHAELE HIC 199 KULANI CAMP 79		87.0 81.9 85.2	66.3 65.9 67.6	70.7 73.7 76.4	4.1	89 83 88	12+ 14+ 3	64	30+ 25+ 15+		0 0	0	0	0	8.73 1.27 .14 1.95 2.69	- 5.20 - 4.81	3.01 .71 .11 1.05 1.40	15 15 29	.0	0 0		1	3 3 1 0 0 0 1 1 2 1
MAUNA KEA BEACH 98 PAHALA 21 POHAKULOA 107 PUAKO 95.1 PUU WAAWAA 94.1	A	88.5 82.1	72.2	80.4	1.5	95 85	23	68 61	7		9		0		.04 5.50 .60 .16	.06	.04 2.67	15	.0	0 0 0 0 0		0 5	0 0 2 2 0 0 0 1 1
UMIKOA 118 WAIAKFA SCO 88.2		l													2.02 7.60	- 4.38	1.00 3.40		• 0	0		4	2 1 2
ISLANO				71.7											2.94				. 0				

### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 95° ON THE 4TH AT MAUNA KEA BEACH 98, HAWAII

LOWEST TEMPERATURE: 34° ON THE 28+ AT MAUNA LOA SLOPE OBS, HAWAII

GREATEST TOTAL PRECIPITATION: 28.50 INCHES AT WAHIAWA MOUNTAIN 990, KAUAI

LEAST TOTAL PRECIPITATION: 2ERO AT 2 STATIONS, MOLOKAI

GREATEST ONE-DAY PRECIPITATION: 24.00 INCHES ON THE 30TH AT INTAKE WAINIHA PC 1086, KAUIA

### SPECIAL WEATHER SUMMARY

The damaging wind and rainstorm which broke over Hawaii on November 28 ( and was consequently widely referred to as the "Thanksgiving Day Storm") extended well into the first

week of December. A full description of that storm may be found in the December 1968 issue of this publication.

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	onth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
 LAND DF KAUAI						1																									
AHOLA 1111 A YOESWOOD STA 985 A ST LAWAI 934 A EELE 927 A LAULA 1110 A	7.69 4.59 3.94 5.32 8.68	T T	:	:	.10 .13 .19 .02	T	•01		.05 .16 .07 .25	:	:	.06 .10 .07 .08	T	1.45 1.83 1.12 1.86 1.06	2.00 1.96 2.93	T •02 •09	:	:	.15 .03 .04 .06	.02 T	T .01			:	:	.67 .29 .45 .10	.02	.01	:	:	2.92
ENANAHO 1006 A IPO 945 ILIULA INTAKE 1050 'AKE WAINIHA PC 1086 A IHIWAI RES 1131 A	4.81 4.68 50.61 11.58	.06 .28 .20	.24	.30	.35 .04 .25	.16	•		.03	• • 25 •	.20	.11 .15 .36 .27	.07	3.40 2.00 3.90	2.30	.02	.20	.08 .08	.12	.04	.09	.03	.70 .01	• • 40 •	1.00	.45 .37 .82	.14	.02	* * * * * * * * * * * * * * * * * * *	4.02 la.35	10
ALDHULUHULU 1075 IEHA RESERVOIR 1092 A AA STABLES 1104 A LUIA 1112 A AHA 944	15.58 23.05 10.37 6.83 4.70	.03	:	.02	.02 .68 .15			.03	.07 .01 .05 .15	:	:10	.04 .46 .23	.08	.86 1.22 .98	1.30 2.93 2.75 2.39	.06	.05	.10	.38	.10 .18 .05 .02	.02			*14	.03	1.14	.04		.50	3.42	5.09 16.27 5.05 2.41
AUEA 1134 AUEA FIELD 17 1135 A AUEA POINT 1133 D 1033 DA 936 A	9.97 12.20 9.14 5.34 5.12	.31	.16	:11	.28 .49 .05	.02 .12	.01		.10	.13	* * *15	.46	.01 .02 .67 .23		1.10	.02	* * *16	.00	.26	.01 .02 .07	.14	.06	.01 .01 .35	.19	.28	.75 1.01 .20 .03	.10	.01	.98	4.27 .68	
DA MAUKA 994 DKO RES 1137 A JIULA 935 A JULA 935 DE 1020 A	6.60 16.55 3.37 13.37 11.03	.06	.20	:	.38 .79 .24 .23				.10	:	•	.34	.24	1.81 .60 .94 1.75	3.01 I.97	.01 T 1.62	.05	:	.12 .30 .02 .10	.02 .01 .08	.09 .30	.01		.23	• • • 2 7	.81 1.08 .05 .38	.09 .14	.02	:	2.05	9.58 \$.75 7.40
UE W8 AP 1020.1 R AHUENA POINT 940.1 AWELI 965 A A 1026 INT UPR CROSS 1083	8.62 7.92 12.31 7.50	.02	.01	.03	.01	.01	т	.09	.01	.06	.03		2.70	1.55 .17 1.38 3.05 6.60	.01 I.74	.01	.11	.05	.02	.04	.06	.01		.38 .15 .02		.18 .07	•91			4.08 1.38 1.08	.99
DAA 1145 A NT WAIALEALE 1047 RIDGE 1035 AILUA DITCH 1051 A WAINIHA 1115	7,40 5,14 14,34 19,75	.20	* * * * * * * * * * * * * * * * * * * *	.09	.47	.10			.08	.12	* .63 *	.02	3.46	1.20 2.20 3.26 2.00 2.53	2.15	.02	1.02	.12	.27	.01 .47	.05 .51	.04	.12		.24	.71 .43	.07		8,39	16.14	2.70
NCEVILLE RANCH 1117 HU RIOGE 1040 I 1013 A ERVDIR 6 1004 A	11.76 5.57 4.99 5.26		.57	.09	.38	•••			.55	•	.15	.30	.04	1.57 3.53 1.20 1.98	.63 .98 2.36 1.77	.09	:	.13 •	.07	.05	.04			.15	.75	.10	.17			1.60	
1AWA 930 A IAWA MDUNTAIN 990 A AHI LOWER 1054 AHI UPPER 1052 AWA 943 LUA KAI 1065 A	28.50 16.65 17.61 5.72	.05	.20	.23	.09	.02 .02	٠	٠	.01 .01 .35		.18	.11	.12	1.67 .98 1.34 3.31 1.06	* 3.55 2.81 .45	٠	.09	.20	.03	.03	.49	.28	•	• • 35 • 28	.28	.06	. 13	•	:	2.86	28.50 6.13 6.56
HEA 947 T LAWAI 931 A	4.12 4.27				.30				.20	•	•	.09	.05	2.30	.40	.01			.03	. 04	.01					.11	.in			:07	1.10
LAND OF DAHU  A FIELD 625 761 A  ENDER STA  P 84 807 A  RCH COLLEGE LAIE	4.80 6.85 2.15 6.35	•11	* .11	.07						:	* *05 *	.14		.03 T	.20 .25 1.63 1.86	.12	.01	02	.05	.08	† <sup>17</sup>	.07		. C2	•	.10	.17	.0? .15		1.93	
DNUT ISLAND 840.1  PLANTATION 741  EMANG INTAKE 881 A ULOA 725.2  GLULU G8SERV 702.2	9.74 4.86 12.76 7.24 4.70	:	:	.08	• • •	:	:	:	:	:	.06	.20	:	.02	2.15	.24 .92 .78	* 1.77	.15	.24	.30	.08	.16	:	.17	.05	.02	.62	.01	:	.16 .83 8.76	2.61
OLULU W8FC 703 R OLULU SU8STA 704 P A EXP STA 707 ANA 883 A UKU 912 A	5.64 5.40 9.10 18.43 2.39	.01	T .	T .	.14					Т .	:05	. 28	. O.7	.06	1.57 .82 .41	.48	Ť	,02 .40	1.86	.01	.02		T •	.38	T .	3.60 .08	.05 T	.03		1.67	1.70 4.51 12.55
LUA FIRE STA 791.3  IHI RES SITE 777  EDHE HAUKA 781  EDHE RANCH 838  ALAMA 773	13.84 11.30 10.28 2.24		18 •04	.14						.06	T:10	1.30	.05	.02	1.30 1.70 2.11 .35	.97	.06 .12	.11	.02	.18 .58 .54 .18	.06	.04 .02	.02 .19 .03	.03 .14 .12 .02	.03 .28 .13	.06	.28 1.70 .14 .17	.18	.30	0.68	1.64
AIHAPAI 841 A AI IKI INTAKE 880.2 A GO CAMP 8 855 A LAU OAM 833	4.10 18.50 7.23 11.74		• • • •02	:	.04	•		•	•	.05	* * •	.10 .02 .02		.50	I.00 e 2.33 1.42	.47 • .31 .02	:	*	.04	.05	.05 .70	•		*	.09	.09	.16		:	, 55	1.48
ALILO HOME 724.2 AHA KAI 796 AHA VALLEY BOO.1	3.84 5.90 8.44	•	*	*	•	•	•	•	•	•	•	•	.01	.42	.63 1.11	.08	.66	.06	•	.03 .01 .01	.03	•	•	• •09 •01	:	.05	.05	.05	:	.46 2.12 3.03	2.35 2.55 3.34
APUU POINT 724 IOA 712 IOA TUNNEL 2 716 INALUA 770 JANU RES 4 783	6.14 11.03 17.52 7.37 9.82		.08	.02	.02	.02		Т			.04		.0*	.02	.30 .54 .81	.64	.14	.11 .22 .03		.03 .10 .94 .09	.30	.04	T .34	.19 .30	.04 .34 .05	.01 .90 .01	.12 .11 .78	-13	. 44	5.22 9.22 1.91 4.26	1.64 3.44 1.40
JANU RESERVOIR 5 775 A AEULA 87C A .OLO VALLEY 718 JOA FLATS 784 RTLOCK ROAQ 724.4	10.02 10.07	T	.02 .12 .02	.10	.02		• 0 2			.14	.20 .06 .22	.03	.04	.06	.46 .90 1.03	.02	.10	.15	.10	.09 .62 1.18 .03	.22	.04	* .36 .04	.32	.08	.70	1.99		1.70 1.78		1.92
WAHIAMA 820.2 A IALUU 884 A ICHBOHL CRATER 709 A STEPHENS SEM 788 ITALUS 2 780.5	1.87 9.18 3.73 9.61 14.87		:	.12	.01					:	.05	.05	.02	.40	.75 1.23 .17 .22	.40 .72 .70 .43	* • T •	:11	.05 .12 .04 T	.03 .11 .04 .10	.06	.02 .03		.05	:04	.08 .92 .02 .22 .07	.02	.03 .37 .17	:19	1.58	6.29
V OF HAWAII 713 A IAWA OAM 863 A AHOLE 837 A ALAE KAHALA 715 ALUA 847 A	5.79 7.00 12.85 5.17 4.82	.02	:	.09	.01 .13					.01	.03	.06	.06	.03	.20 2.14 .68 .18 2.12	.12 .33 .72 .03	:	• • • • • • • • • •	.06	.06 .06	.13	.22		.0+	:	.04 .23 .98	.01	•29 •09 •09		4.95	3.70
ANAE 798 A ANAE MAUKA 803 A AWA 836 A KANE 885 A	4.90 10.41 16.74 14.98	:	.01	.07	.03	:	.01	*	:	.01		* .18	.01	.53	*72	.03	1.30		2.38	•	.01	:	:	•01	:	.07	*	.55	•	1.57	1.96 6.50 16.74
KIKI 717-2 LUPE KESV. 723-2 A HANALD 794 MEA 892 PAHU 750 HELMINA RISE 721	4.51 6.82 7.64 6.93 4.78 9.02		•	.02	.05	.02			•	:	***	.25	.01	.50	.20 .50 1.08 1.60 .35	.50 .80	.02	•	.02	.10 .06 .22	.24 .45 .10	.16	•	.01	.09	.01	.02	.03 .29 .37		.29	5.87 3.70 2.80 3.00

HAWAII

-	_ 1	-				_			_		-			Day	of M	onth															
	Tota	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
A	2.76	•	•		•	٠	٠	*	•	¥	•	•	*	•	•	.13	.10	٠		•	٠	•	. 24	•				•	1.00	•	.76
A	1.09							. 20	.10	.30	.30	.11			2 • 50	.33	.20		.07	.05	.03				.15		.01		1.43		i
Δ Δ	2.67 2.51 2.04 2.62			T .01	T .42	T •	٠			.05	. 0 8 •	.14		. 25	*11	.28 .31	.01	٠	.86	13 *	T •		.08	.03		1.20		T •	.25 *	1.02	2.35
																								_							
A A A	2.81 3.32 4.38 4.54 3.56	:	:	0 4	:	:	:	.08	:	:	:	:	T	:		2.50	.01	:	:	:	:		:	:	:	.02	:	:	:	1.07	2.00 .82 2.12 3.21 3.56
A	1.83		٠		T											.69	:	:	.01	:	:	90	:	*	:	.c1		:	:	:	3.20
A	10.75	٠		٠	٠	*	٠	*		٠	٠			٠	* •07 •10	.41 * .24	.89 .63 .13	.01 * T	.20	.02	* T		*	.18 .08	07 07	* T T	.02 * .01		. 1	9.72	.40
Δ	8.18	٠	.01							.04	-10					.26	.21		.03					.05	.01	.02	.02		•	2.10	7.60
	12.78	.01	.06			.04	-09		.07 .02	.09 T	.08 .12	.10 .15		т	T	.12	.21	T .10	.06	Ť	.09	104	Т	.46 .51	.17	.72	.19	.07	T	9.98	.46
A	.35		•	:	:	*	:	:	:	*	:	:	:	:	:	.10 *	:	*	:	:	*	:	:	:	:	*	:	.25	:	* 1	2.76
A	19,40	٠	*	:	.03	*	*	*	*	:	:	* 15	٠	٠	٠	•17 •	* T	:	• 05	•	.02	.02	•	:	:	.30	.02	•	+ 1	19.40	.65
R	11.75	Т								* T	٠	٠	٠	٠	• 14	.15	.08						.01	•	* !	.01			2.32	2.17	1.60
	19.65	:11	:11	.06	.06					.25	:10	.16	:			92	.04		.17	.03	.02	.04	•	.15	.44	.32	.69	:	. '	7.80	1.08
Д						*										<b>.</b> 14	.36	T #					*	*02		.25	;°1		• 1	4.05	.23
	2.68								.14	.09		. 20		.06	Ť	.11	.02	.25			. 15			.61	. 33	.28	.44	.06		1.70	.05 .50 2.34
	6.36												.02			.14	.28		т		.19					.06	.05			5.70 1.21	.19
A	3.50	٠	•	٠			٠	٠	•		*		.01	٠	•	.03	.12		•	•	•	•	•	•	٠	٠	*	*	•	2.00	3.50
Δ	15.00	٠	*	*	*		•		٠	*	٠	*	٠		٠	*	*		*	٠	•	•	•	.05	٠	*	٠	•	• 1	3.95	2.00
A	2.66	*	*	•	.03	•	•		•	*		.04	:	:	:	.70	:	*	.18	T T	* T	•	•	•14	.02	.02	.13	•01	.091	11.58	.23
	26.23	.05	* 31	.04	٠	٠	٠	٠	0	.03	•	* 30	.07	.05	• 13	.20	•	•	.48	*	. 36	.20	*	• 73	.53	.53	.59	٠	٠,	* 1	7.60
Δ	9.21	•	*07		*	*	٠	٠	٠	* 02 *	* 02	* • 28			1 - 21	*13 *	T *	:	.03	•	•	٠	•	* 05	:	.48	.02	•	:	3.80	8.00
Δ .	4.03	:	*	:	:	*	:	*	:	:	:	:	:		:	.13 *	. 26	:	:	:	•	:	:	:	:	:	:	•	:	2.68	20
A	3.97	•	•	•	٠	•	•	0	•	•	•	•	•	•	*	*	.12	•	•	•	•	•	*	•	•	•	*	•	:	3.38	.32
A	4.36	0											. ]		T •	:17	T							.01		.07	.01			3.50	4.25
A	2.40	•	•	•	•	٠	•	*	•	•	•	•	- 1	•	*	.10	•	•	•	*	•	- 1	*	•	•	.03	*	.03	*	2.00	.30 .08
Δ /	4.10															.02	.02	.05						.02	.01					3.15	.91
A		* *04	:	*	.09	:	.01	:	:	*	:	:	* * 12	* * T	:	.18	.02 *	:	1,23	* • •01	.01			•06	.08	.26	*	* • •01		.15	.63
v	6.05	*	.03	٠			٠	٠	٠		٠	*			* T	.15	.35	* T		*	•	•	•		* T	٠	*	•	:	4.30	.32
Α	.47												•	•	.47																•
A	1.30					e																									1.30
A	2.20	٠	.02	•	.34	٠	٠	.09	٠	*	•	.35		٠	*	.12	:	.24	.45	.26 *	*	.12	.04	:	:	.86	.15	:	:	:	5,35
A	4.79			.02							• 02	٠		.02	•09	.28	.04	.10	• 01	.16	.12	.01		*15	.09	.17	* 11			3.05	4.79
Α	4.51	•	.07	1.74	* * T	*	* * T	* * * * * * * * * * * * * * * * * * * *	+02	.07	* * T	*	* *	* * * * * * * * * * * * * * * * * * * *	• •17 •94	* 1.97	.05	* * T	.09	* * T	.06	.05	10 T	.82 .06	.05	* *	.02	•	:	:	34
R	10.42	.25	7	*	.15		•01		.11	.08	* .02	.01				•11	•		.15		.03	.26		•	•	.96	.48 T	.01	•	•	•
A	2.92	*				* 21		+ 05	.02	•	•	*	•	*	•	.20	•	*	*	•	•	*	•	*	•	*	.11		2.20	•	•
Δ	5.79			***	.23					* 33		.29				.21	.06	* 11	.15	.06	.40	.18		•12	.10	.75	.04	.34		3.88	.07
A	7.33		+25	*	:	*	:	:	:	*40 *	:	*	.04 *	.04	• 0 8 •	.49	.16	10	03	.18	.37	10	:	.07	.15	07	.04	*	.80		
à	4.25	*	٠	*	•	٠		٠	٠	•	*	*	•	•	*	. 56	٠	•	•	•	•	•	•	•	•	•	*	*	.27	•	.04
	2.01				.04		• 0 2				* 10	*	T .02		T	.56 1.36	.03	.06	.21 T	.05				•	.23 3.16	. 25			:	•	T 13.55
A		٠	٠	۰	٠	٠	*	*	٠	*	*	.04	•	*	*	.20	.12	.09	•	•07	.02	•	•	.02	2.06	•	.10	•	•	.08	.83
	1.57																														
	AA AA AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	A	A 2.67	A 2.75	A 2.75	A 2.76	A 2.75	A 2.76	2 2 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A 2.76	A 2.00	2	A 2.00	## 2.00	Part   Part		2					Part		Part	Part	Part		Part	Part		Part

									-			-							-	•											MADA		
Continued																															NOVEN	BER	1968
Station		Total													Day	y of l	Month																
		F	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
KAUMANA 88.1 KAWAINUI LOWER 193 KEAAU 92 KEALAKEKUA 26.2 KEHENA 181.2	A	6.77 5.31 8.77 1.27 5.50	7			* T		•		. 39	.18	• 03	.08	.05			1.49 .76 1.06 .71		.04	.03	•12 •06 •04	.22	.17	.63 .02 T	·15	.38	.09 .01 T	.06 .11	* T *		2.83 2.95 3.01	.57 2.88 T	:
KIDLAKAA A E F 6 KIPA 89.2 KOHALA 179.1 KOHALA MAULILI 176 KOHALA MISSION 175.1	A A A	6.32 1.41 1.38 3.57		*1	:	.09		• 01 • 02		•	* 14 * T	.C.3	.02 .12 .03	.07	.11	• 01	1.28 .02 .03	.20	.07	.06 .37 .27	* •11 •02	.24 .01 .n2	* .33 .18 .08	* T	+15 + +	* .18 *	.18 .60 .70	* .01 .10 .12	٠	:	4.20 2.22 *	.76	•
KOLAWE LOWER 196 KONA AIRPORT 68.3 KONA VILLAGE 93.8 KUKALAU 222 KUKULHAELE HIC 199	Α	3.35 .14 .28 1.65		٠	•	•	٠	٠	•	.23	•	•	٠	٠	•	• T • 2 8	.32 .11 .11	Ť	.01 .07	•	* .28 .15	٠	.10	.45	•	* *°2	•	.10	٠	•	2.00 1.17 1.05		:
KUKUIHAELE MILL 206 KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68.2	A A	2.03 2.69 1.58 3.23		*1	i * •1;		*				• 05	•19			.02			.35	.05	.08 .07	.18 .03 *	*	.08	٠	•10 •			.09		*10 *	1.21	.32 .53 .28 1.43	•
MANUKA 2 MAUNA KEA 8EACH 98 MAUNA LOA SLOPE 085 MIODLE HOLUALOA 68.1 MIOOLE PEN 147.1	A A	2.71 .04 1.55 .32		:	:	:	•	:		:	:	:	:	:	:	• 0 4	.60 .04 1.01 .20	:	•	1.40	·17	T .	:	:	:	•	+ Q.R.	:	:	.11	.46	.10	
MOAULA 18 MOUNTAIN VIEW 91 NAALEHU 14 NAPOOPDO 28 NAULU FOREST 38.6	A A A	8.25 8.61 2.95 1.21 13.11		.0	.02		٠	* T	•		.37	.07 .05	* .02	.09	.10 .02	• 08 • 25		.36	.09	.44	.06 .37	.11 T	.07	.01	.10	.22	.01 T	*17 *		:	2.38	8.25	:
NIULII 179 ODKALA 223 OPIMIMALE 2 24.1 ORCH10 LANO EST 91.5 PAAUHAU 217	A	1.24 2.34 3.45 7.74 2.02	T 1.04	.0:		.14 T	.04	• 0 5 T	•	.02	• • • •	•	• 04			1:68	.03 1.88	.12 .01 .01	.15 .05	.38 .01 .34	.17 .01	.04 .04 T	.20	.02 .01 T	.38	* 02 T	. 14	.20 .01 .14	.38	* T *	1.71 .01 3.97	.01 T	
PAAUILO 221 PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144.1	A	1.38 5.50 11.75 7.40 6.78		.17			.06				.35	.07 *	• 04	:17	.11	•19 •22 •		.40	.11 .08 T	• 02	.15 .10 .29 *	.39 •	.10 .10	.04	.37	.82	.03	.25	.02		1.05 2.05 3.15 4	.01 .03 3.02 7.40	
PAPAIKOU MAUKA 140.1 PEPEEKEO MAKAI 144 PIIHONUA 89 POHAKULOA 107 PUAKO 95.1	A A	6.97 5.49 3.00 .60	.01 •	•18 •31				:			.20	• 08		.08	.13	.03 .01 •	.66 .57 *	.18 .02 *	.14 .11	.05	.18 .11 •	.27 .30	.18	T .02	•15 •14 •	.28	.15	.10	3.00	:	2.93	.79	:
PUU KIHE 120 PUU LAAU 102.1 PUU LEHUA 73 PUU MAL1 113 PUUOKUMAU 167	A A A A	2.18 3.35 2.00 2.60	:	:	:	*	:	:	:	:		:	* * *	:	:	:	.06	:	:	• • •	* * * *	•	.03	:	•	:	* * * * * * * * * * * * * * * * * * * *	.11	.03	•	*	2.18 3.35 2.00 2.60	
PUU 00 82 PUU MAAWAA 94.1 SAODLE ROAO 1 84 SOUTH POINT CORFAL 3 UMIKOA 118	A A	3.12 1.62 5.87 2.13 2.02	.95	* 12		:	. 25	:	:	:	.15	• 0.5 •	•	.03	:	.05	.62 .31 e 1.79	.47	.12 .51	.03 .02 e	. Q2 e e	.01 *	:	:	.14	.21	.03	•°1 •	:	:	4,92	1.00	
UPOLU POINT USCG 159.2 WAIAKEA SCO 88.2		1.53		.11							.07	. 05		.14			.16 1.86	. 05	.08	.01	. 04	.07	.15				.33	.03	.72		.59 3.40	T . 84	:

# SUPPLEMENTAL DATA

		(	Win Speed -		)		Relati	ve hum	idity ave	rages		Numl	oer of da	nys with	precipi	itation			meet
Station	Resultant	Resultant	Average	Fastest	Direction of fastest mile	Date of fastest mile	150 2 AM	TH MERI	DIAN TI 2 PM	ME 8 PM	Trace	01-09	1049	5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO: HAWAII: WE AIRPORT	19	2.8	6.6	19	E	12+	85	78	71	87	2	7	9	1	2	1	22	50	5 • 2
HONOLULU. OAHU. WBFC	7	6.5	10.5	36	NE	28	83	77	61	76	10	1	1	1	3	0	16	63	4.6
KAHULUI: MAUI: WB AIRPORT	5	6.8	9.5	30	NE	29+	85	7.8	59	80	3	4	2	0	0	2	11	73	3.4
LIHUE, KAUAI, WE AIRPORT	7	4.4	9.6	32	NE	2.8	88	85	77	87	2	8	5	2	1	1	19	54	5.7

# DAILY TEMPERATURES

HAWAII NOVEMPER 1968

																Day	of Mo	nth													IDVEMPER	Average
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 31	Aver
ISLAND OF HAUAI																																
KANALUHULUHULU 1075	MAX MIN	74 50	75 55	72 60	72 53	74 47	70 47	73 57	73 60	73 56	72 53	71 51	68 55	64 59	71 53	72 48	65 49	7 <i>2</i> 51	72 56	73 55	72 52	71 47	69 48	70 <b>5</b> 6	71 56	71 54	69 50	73 51	62 52	6 0 5 7	62 57	70.2 53.2
KILAUEA PUINT 1133	MAX	87 74	88 73	86 73	86 72	85 71	89 73	90 74	89 73	87 73	64 73	85 75	85 69	79 69	86 72	56 72	79 76	84 72	89 72	80 73	83 75	79 73	83 71	80 73	82 71	8 2 7 2	89 72	87 72	74	75	8 4 6 8	84.1 72.4
LIMUE #8 4P 1020.1	MAX MIN	82 70	83 74	82 74	82 72	82 69	84 67	83 69	82 73	82 74	81 75	84 69	64 70	78 69	82 67	81 66	80 66	81 71	8 2 6 8	80 73	81 73	8 1 7 4	81 74	80 70	80 73	80 70	82 68	81 67	75 67	75 68	79 68	11.0
MAKAHUENA POINT 940.1	MAX MIN	84 73	86 72	86 73	86 73	8 5 74	86 78	87 72	88 76	87 76	85 75	83 73	86 74	66 70	88 68	88 68	8 8 6 8	8 1 7 2	80 76	85 70	87 75	8 8 7 5	84 74	82 69	82 77	84 70	85 74	8 2 7 1	86 72	61 69	77 70	72.6
4ANA 1026	MAX MIN	87 66	87 67	88	68 67	87 66	87 67	88 70	90 73	86 72	90 70	88 66	88 72	86 68	62 67	86 69	84 65	89 67	84 67	86 67	85 70	85 66	86 64	84 66	85 67	84 67	85 68	85 68	86 71	74 70	83 69	85.8 68.6
NIJ RIOGE 1035	MAX	83	84	84	85 64	84 63	84	85 65	85 65	85 65	8 4 6 5	84 62	8 2 6 9	80 65	79 65	80 65	79 63	80 63	80 62	80 61	79 60	80 60	79 60	79 60	78 61	79 61	80 61	8 2 6 3	81 62	80 63	79 61	31.6
WAIAHI LOWER 1054	MAX	83	83	83	83 67	83 62	94 61	8.5 62	86 58	85 61	86 62	85 62	84 62	78 66	78 66	78 66	94 60	94 67	85 51	82 67	94 67	93 65	91 61	82 67	8 2 66	84 63	93 63	87 62	84 63	94 51	78 60	93.0
ISLAND OF DAHU																																
WA PLANTATION 741	MAX	89 68	89 70	89 68	65 68	86 66	86	86 69	88 65	86	85 68	87 66	85 69	8 5 7 2	79 72	87 67	86 68	86 69	87 66	84 70	88 68	86 67	86 65	86 69	8 5 6 8	86 68	8 5 6 9	89	84 67	76 68	76 67	85.4
HONOLULU W8FC 703	MAX	89 70	90 73	89	90 74	88 69	85 70	88 71	90 68	ö 8 7 5	89 73	87 69	87 72	86 75	80 71	86 71	87 70	87 73	86 68	84 73	89 71	86 71	87 73	87 73	87 73	87 71	86	85	86	75 69	78 68	71.
40NOLULU SU8STA 704	MAX	8.5	8.5	85 77	86 76	84	83	86	84 73	84	84	85 73	83	83	79 72	64	83 75	85 75	85 73	82 75	84	82	82 76	8 2 7 4	83 75	83	84	83	82	76 69	-	63.1
(AHUKU 912	MAX	85	77		85	73 85	87	86	86	13	15	87	8.5	87	8.5	80	13	,,	87	85 73	80 73	84	83 76	1-	,	83	83	8 4	0 /	0,	00	13.
CANEDHE MAUKA 781	MIN	76 85	86	84	73 86	85	84	86	65 85	82	84	86	87	67 85	77	83	83	8.5	84	79 74	83	82	82	81	79	8.2	83	85	81		78	82.
UALUALE! 80÷	MIN	73 88	73 88	75 88	74 86	70 86	66	68	71 68	71 87	70 84	71 86	71	72	71 90	70	73 85	70 64	63	ã7	73 83	71 87	72 86	70 83	71	70 63	70 65	71 86	70	6 P	69	71.
AKAPUU PUINT 724	MIN	71 86	76 81	70 86	69 82	65 83	67	67 82	67 90	68 86	73 80	8 5	83	80	67 85	68 78	80	74 80	67 79	73 85	71 80	70	72 80	72	73 66	70 80	70 79	6 B 8 5	81	79	76	69.
IP46ULA 870	MIN	75 85	75 37	74 85	75 84	74 86	85	75 85	74 86	75 84	74 86	75 80	73	74 -84	74 80	72	75 86	73	75 83	73 84	75 75	76	74 82	72 84	73 81	73 79	76 33	73 81	73 77	69 77	70 79	73.8
PRI WAHIAWA 820.2	MIN	65 87	60	64	64 88	64 88	88	65 88	64 87	88	64 86	88	87	68 86	68	78	82	83	63 85	83	65 78	84	67 83	69 83	67	84	66 85	64 85	66	70 80	71 74	34.1
WAIALUA 847	MIN	65 88	89	88	65	62 89	68	63 87	61 86	62 88	66 85	63 85	63	66 88	70 83	65	83	84	86	83	66 83	65 86	84	64 83	68	64 83	66 85	62 85	62 84	64 81	66 75	54.4
WAIKIKI 717.2	MIN	64	65 88	66	66 87	64 89	68	66 87	63 88	64	66 87	66	89	71 89	70 87	67	68 87	68	68	88	65 88	87	63 85	64 86	68	66 85	67 82	64	66 87	<b>6</b> 6	68 78	66.6
	MIN	72	74	76	72	68	66	71	66	74	72	70	71	74	75	71	70	74	67	73	75	73	75	73	75	70	70	66	67	69	69	/1.3
ISLANO OF MOLOKAI																																
OLOKAI AP 524	MAX	8.5	86	85	85	0.4	80	87	86	8.5	85	0.5	0.5	87	41.6		0.4		0.5	0.3		. 3	0.3				0.0		0.1			
1000×41 M7 324	MIN	71	72	76		86 65	66	66	68	67		85 70	85 68	66	86 68	82 68	86 69	84 75	67	83 73	80 70	68	83 69	83 68	83 76	83 66	83 68	83 66	84 69	77 68	80 69	69.2
15. 400. 05. 1404.																																
ISLANO OF LANAI																																
ANAI CITY 672	MAX	66	79 64	63	66	80 64	65	82 63	82 66	63	65	82 63	64		63			80 61	82 64	78 65	76 66	65	78 66	77 66	76 65	78 65	77 66	80 64	78 62	75 65		54.4
																Ì																
ISLAND OF MAUI				-																												
MALEAKALA RS 338	MAX	68 42	65 44	69 47		69 43	68	72 47	68 46	94	68 44	69 43	70 49	65 45	65 48	60 50	66 46	67 44	68 46	66 49	65 46	65 43	67 45	68 48	63 48	65 43	64 47	62 43	62 41	62 43		56.1
HALEAKALA SUMMIT 338.4	MIN	59 44	60 42	55 43	63 40	63 45	65 46	63 46	61 45	63 42	62 44	63 41	43	60 40	\$6 42	49 42	55 39	58 45	61 48	61 48	58 41	62 44	61 45	60 39	57 38	52 39	48 39	47 39	53 40	55 39	56 41	58.2
AANA AIRPURT 355	MAX	85 69	86 71	85 69	86 71	86 69	86 71	86 67	87 71	87 72	85 71	85 71	8.5 7.2	86 74	86 73	86 72	84 70	84 70	84 67	85 69	65 71	86 71	85 69	85 68	82 70	83 70	83 73	84 69	84 67	83 68	76 70	70.2
CAANAPALI AIRPORT	MAX	86 58	8 <b>7</b> 71	87 70	8 70	85 67	86 69	85 68	89 68	87 72	86 70	86 70	8.5 70	86 69	86 73	83 70	85 70	85 67	86 70	85 70	85 70	85 69	85 72	88 71	86 69	85 67	87 71	84 67	84 67	84 69	82 69	69.4
(AHULUI «8 AP 398	MAX	39 64	9 n 6 6	91 67	91 64	90 62	87 63	90 64	90 64	90 69	90 65		91 68	92 63	83 71	8 <b>7</b> 70	87 72	89 62	87 65	38 73	89 65	86 66	87 72	8 8 6 9	89 68	88 64	90 65	8 8 6 4	86 65	83 70	80 68	88.3
KAILUA 446	MAX	8 2 6 5	81 65	81 70	80 70	81 63	61	83 64	83 65	81 67	81 67	81 67	80 65	82 65	в1 68	82 67	84	81 67	80 65	8 4 66	81 69	81 69	80 68	80 68	78 67	78 67	76 67	80 63	81 63	81 63	74 65	80.7
(EAWAKAPU 8EACH 260.2	MAX	91 64	90 67	92 65	91 65	92 65	91 67	8 8 6 5		92	90 64	88 66	8 B	91 65	91 70	87 69	88	87	90	90 64	93 66	92	92	93	92 65	85 65	88	90	89 65	88 70	82 68	89.7
								٦.	7.	7.	72														- 1							
FULA SANATORIUM 267	MAX	76 57	75 <b>5</b> 6	74 55	77 55	75 56	75 58	74 57	74 55	74 56	73 57	74 58	75 59	75 56	77 57	72 58	74 62	74 57	76 56	72 56	76 57	75 58	76 55	74 53	74 54	73 55	73 60	72 59	75 <b>5</b> 6		71 58	74.4

Station  Day of Month  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 2	28 25	00		erage
	28 29	00		Ĭ,
		29	30	31 Å
				87.0 68.
ISLAND OF HAWAII				
HAINA 214 MAX 85 84 85 84 86 65 85 86 85 85 83 87 86 87 84 85 83 84 84 82 85 83 83 83 83 83 84 85 84 86 67 65 66 67 65 66 67 65 66 67 65 66 67 65 66 67 65 66 67 65 68 69 68 67 65 66 67 65 68 69 68 67 65 68 69 68 67 65 68 69 69 68 69 69 68 69 69 69 69 69 69 69 69 69 69 69 69 69			83 83 65 66	64.
HANAII VOLCNS NP HQ 54 MAX 71 72 72 70 70 73 74 75 71 67 71 73 68 71 68 73 71 73 71 71 70 70 70 68 70 71 72 MIN 54 52 55 54 50 52 51 51 51 53 53 56 53 60 59 53 57 59 57 58 53 52 52 56 56 53 52				71.6
HILD WB AIRPORT 87 MAX 84 86 86 86 86 86 86 85 86 86 85 86 86 85 84 83 85 85 84 81 82 83 84 84 85 86 MIN 67 69 66 66 66 68 65 67 69 68 69 69 71 72 70 69 68 71 70 68 66 66 66 66 66			82 73 70 69	84.
KAINALIU 73.2 MAX 83 83 82 82 82 80 82 82 83 81 83 82 81 81 80 80 81 81 78 80 80 81 81 81 80 80 82 82 83 81 83 82 81 81 80 80 81 81 78 80 80 81 81 81 80 80 82 82 83 83 82 81 81 81 81 81 81 81 81 81 81 81 81 81			82 80 67 65	31. 54.
MAX 78 75 80 77 77 79 81 80 76 78 76 80 82 82 83 80 74 81 80 74 75 76 76 76 80 76 82 81 80 74 81 80 74 75 76 76 76 80 76 82 81 80 74 81 80 74 75 76 76 76 76 82 81 80 74 81 80 76 82 81 81 81 81 81 81 81 81 81 81 81 81 81			79 80 54 63	78. 54.
KAMUELA AIRPORT 191 MAX 77 78 79 78 77 79 79 79 80 78 78 78 78 81 82 79 76 79 78 74 75 75 76 75 76 75 80 MIN 49 50 49 53 53 50 51 50 49 53 52 51 51 51 48 53 60 52 52 47 42 44 51 42 43 51 47			80 76 45 49	77.
KEAAU 92 MAX 87 83 88 88 87 87 89 89 87 87 87 89 89 88 87 86 88 88 88 88 88 88 86 86 86 86 86 86			87 87 65 65	87.1 56.
KEALAKEKUA 26.2 MAX 83 83 81 82 83 8C 81 82 82 81 83 81 82 83 81 81 82 83 81 81 82 83 81 81 81 80 81 79 80 80 82 82 82 82 82 80 82 82 80 82 82 80 82 82 80 80 80 80 80 80 80 80 80 80 80 80 80			82 80 67 66	81.
KUHALA MISSION 175.1 MAX 83 82 83 83 84 84 86 84 83 84 82 85 85 87 88 81 83 84 82 83 81 80 80 82 81 83 84 82 85 85 87 87 87 87 87 87 87 87 87 87 87 87 87			83 79 67 69	83. 68.
KUNA AIRPURT 68.3 MAX 86 85 88 86 68 68 68 68 68 68 68 68 68 68 68			86 85 67 72	95. 67.
KULANI CAMP 79 MAX 67 67 68 67 70 70 72 68 68 70 66 72 71 70 70 70 67 67 66 65 61 69 MIN 45 47 45 43 40 44 40 46 46 45 46 52 55 53 48 48 52 50 45 45 50 49	71 48		70 45	68.
MAUNA MEA BEACH 98 MAX 87 89 88 95 90 88 87 87 87 88 88 86 91 93 90 87 87 87 87 87 88 88 88 87 87 87 87 87			90 92 75 75	98.
MAUNA LOA SLOPE DBS MAX 62 62 61 59 58 56 55 59 60 60 58 54 52 50 50 54 58 57 57 58 55 58 56 53 54 50 52 MIN 40 44 43 41 40 39 34 38 42 41 38 36 37 39 35 40 38 40 36 38 38 38 38 38 36 35 35 35			48 48 39 37	55. 38.
MOUNTAIN VIEW 91 MAX 80 80 81 81 80 82 81 82 82 79 79 81 79 79 81 80 80 81 82 79 79 78 77 77 80 79 82 MIN 60 60 59 59 59 60 60 60 59 60 60 60 59 60 60 62 63 65 66 65 62 62 61 65 63 62 62 62 63 60 60			82 76 64 62	80.
NAALEHU 14 MAX 84 84 84 84 82 83 84 84 84 84 88 83 83 84 81 83 83 82 82 83 83 80 82 83 84 84 84 82 83 MIN 68 68 69 69 69 70 70 69 69 70 70 69 71 69 69 69 67 67 68 71 70 68 68 69 69 70 69			83 83 69 67	83. 09.
GUMALA 223 MAX 83 84 84 64 84 84 84 82 85 64 78 83 85 84 64 84 85 85 83 85 80 83 83 82 81 84 84 84 85 85 85 84 85 85 87 70 70 70 70 70 70 70 71 70 72 75 73 70 69			65 82 67 71	33. 69.
DPIHIHALE 2 24-1 MAX 78 83 79 81 77 81 81 81 79 80 81 82 82 81 80 78 79 78 88 0 77 79 79 79 80 80 80 80 MIN 62 62 62 61 61 59 59 60 61 61 59 60 60			77 78 63 64	79. 61.

### **EVAPORATION AND WIND**

UPGLU PGINT USCG 159.2 MAX 85 85 85 85 85 85 85 86 87 86 83 85 85 89 90 87 88 87 84 85 85 84 84 84 82 82 83 83 86 86 84 81 MIN 73 73 72 71 72 73 72 70 72 73 71 73 73 74 74 72 72 75 73 72 74 71 72 71 71 72 72 72 70 72

PAHALA 21

MAX 81 84 83 83 81 81 82 84 83 83 83 81 81 82 84 83 83 83 83 81 81 80 81 81 80 81 85 82 81 82 83 84 81 81 81 MIN 64 66 65 61 62 62 63 64 65 69 62 66 66 68 68 66 66 68 65 64 62 63 64 65 63 64 63 63 63 64

Station															I	Day	Of M	onth															Le 1
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * ISLANO OF KAUA1																																	
LIHUE W8 AP 1020.1	EVAP WINO MAX MIN	*	115	120 120 92 72	99	76 92	92	67 89	58 90		142		109		·21 53 84 69	.23 58 90 67		134	62	.20 114 89 68	103	114	133 95	168 86	157 86	90	.26 80 92 70	59 91		285 72			6.20 2943 88.6 69.2
* * * ISLAND OF CAHU																																	
HONOLULU OBSERV 702.2	WIND MAX MIN		92	92	20 93	92	92	.16 23 94 69	.18 20 93 69	.19 22 92 68	.18 35 87 69	.21 21 93 69	.20 19 93 70	35 94	.14 46 90 73	.09 13 80 70		.18 27 90 70	93	9 86	16	21 89	27	37 88	45	18 92	.15 23 90 70	12 91		48 86	32 79 69		4.90 743 89.9 69.4
* * * ISLAND OF HAWAII																																	
HILO WE AIRPORT 87	EVAP WINO MAX MIN		88		54 88	5 2 8 7	9.8	.34 86 90 65	.19 51 89	.19 49 88 62	.24 56 87 67	.25 85 87 67	.19 78 83 67	.16 76 85 67	.03 35 84	.11 43 82 69	.24 63 88 70	.12 40 88 69	.23 53, 90	- 42 92 67	.20 35 89 68	36 87	.06 29 82 65	.07 35 84 64	.13 44 82 68	.12 44 83	. 26 54 86 66	.21 55 86 65	.12 47 86 66	41 82	54		5.31 1535 86.0 66.4

NO.	E †	NO		E A	ND		1	NO.		÷ 3E	IDE	UDE	NOI	1	SERV TIME	AN	D	
STATION X3 NO DISTRICT	DRAINAGE 1 LATITUDE LONGITUDE	ELEVATION	TEMP.	EVAP.		OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.			SPECIAL ME NOTES	OBSERVER
LANC	2 21 57 159 3 1 22 09 159 17 2 21 56 159 3 2 21 55 159 3 2 22 06 159 2 2 21 54 159 3 1 22 07 159 17 2 21 56 159 2 2 21 56 159 2	116 720 440 350 163 253 490	6	A A A A A A	0.0	HC BRYOE SUGAR CO- LINUE RLANTATION CO MC BRYOE SUG CO LTO MC BRYOE SUG CO LTO LINUE PLANTATION MC BRYOE SUG CO LTD LINUE PLIN CO LTO GROVE FARM CO LTO SILNUE PLIN CO LTO EXEXAMA SUGAR CO LTD	KAMERUU 690 KAUMALARAU HARBOR 658 A LANAI C1TY 672 LANAI HALE 684 AMAHANA 694 AMALAUEA 676 MALAUEA 676 AMALAUEA 676 ISLANO OF MAUI	6012 0 9021 0	L LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA LAMAINA	1	20 46 20 47	156 55 156 55 156 52	1640 30 1620 3370 1430 1135 2040		W1 8A 7A W1 M0 W1 WM			OOLE COMPANY OOLE COMPANY DOLE COMPANY DOLE COMPANY OOLE COMPANY OOLE COMPANY OOLE COMPANY
HOLEDO 965 2161 0) WANNEA 11900 21221 02 LIMBE NITARE #AINHAR DE 10864 2227 01 MANAGE NITARE #AINHAR DE 10864 2227 01 MANAGE NITARE #AINHAR DE 10864 2227 01 MANAGE NITARE #AINHAR BE 1131 1092 A 1104 01 KAMAHOU KAMA	3 21 99 199 4 2 22 02 159 2 1 22 01 159 3 1 22 11 159 3 3 22 08 159 4 1 22 08 159 1 2 20 8 159 1 2 20 8 159 1 3 21 56 159 1 3 21 56 159 1 1 22 13 159 2	1070 690 400 3600 175 9	84 6	A A A A A A A A A A A A A A A A A A A		LIMUE RLIN CO LTO  MC 08YOF SUG CO LTD  KILAUEA SUG RLIN CO KANALOMULOHULU R. S. LIMUE RLANTATION LIMUE RLIN CO LTO  CEKAMA SUGAR CO LTO  KILAUEA SUG PLIN CO  KILAUEA SUG PLIN CO	FIELD 46 474 HAELAAU 477 HALEAKALA B E S 434 HALEAKALA RANCH 432 HALEAKALA RANCH 432 HALEAKALA RS 338 HALEAKALA SUMHIT 338-4 HALEHAKU 492.2 HALIHALE 423 HAMAKUARUKO 485	0790 0 0995 0 0999 0 1004 0 1008 0 1016 0 1086 0	LAHAINA LAHAINA LAHAINA LAHAINA LAHAWAO LAHAWAO MAKAWAO MAKAWAO MAKAWAO LAHAWAO LAHAWAO LAHAWAO LAHAWAO LAHAWAO LAHAWAO	1 1 2 2 1 1 1	20 59 20 57 20 51 20 50 20 46 20 43 20 55 20 52 20 55	156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	8 A	8A 5A 5A		e s	ULUBALAKUA RAMCH MAUI PINEAPRIE CO. MAUI PINEAPRIE COMPANY U OF HAWAII EXR STA HALEARALA RANCH CO HALEARALA RAT RARK U OF MICH MT HAALA OBSY RMIL SCOTT MAUI RINEAPRIE CO. HAWAIIAN COM + SUG CO
ELLAZEA PILITO 17 (1135 A 6566) DI MANALET RETAND 131-1 6459 DI **ANNALET RETAND 131-1 6459 DI **ANNALET RETAND 131-1 6459 DI **ANNEA RETAND 131-1 6459 DI **ANNEA RETAND 131-1 6459 DI REGULATORI RETAND 111-1 6459 DI REGULATORI RETAND 111-1 6459 DI REGULATORI RETAND 111-1 6459 DI REGULATORI RETAND 111-1 6459 DI REGULATORI RETAND 111-1 6459 DI REGULATORI LINGULATORI 111-1 6459 DI REGULATORI LINGULAT	1 22 14 159 2 1 22 14 159 2 3 22 02 159 4 3 22 04 159 4 2 21 55 159 2 2 21 55 159 3 2 21 54 159 3 2 22 01 159 2 2 21 59 159 3 2 22 01 159 3 2 21 59 159 3	160 2150 36 240 640 737 100 375 207	8A 8	A A A A	A_ J	U S COAST GUARD KEKAHA SUGAR CO. KEKAHA SUGAR CO. KEKAHA SUGAR CO. KEKAHA SUGAR CO. KERONG FARM CO. LTO GROVE FARM CO. LTO KILAUEA SUG PLIN CO. KILAUEA SUG	HONOKOHAU 480 HONOKOHUA 493 HONOLUA FLD 49 494 MONOMANU GULCH 341 IAO NEEDLE 387.2 KAANAPALI AIRRORT	1882 0- 1887 0- 1914 0- 1935 0- 2208 0- 2307 0-	MANA 1 MANA 2 MAKAWAO 6 LAMAINA 4 LAMAINA 6 LAMAINA 1 MAKAWAO 3 WAILUKU 6 LAMAINA	1 1 2 4 4 4 1 3	21 00 21 01 20 47 20 53 20 56	156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33 156 42	120 61 325 6930 870 135 125 6280 1100 8	84	8A 11A 7A MO MO 6A MO 8A		c s	HARRY HASEGAWA HAWAIIAN A!RLINES KOALI RANCH HALEARALA NATL PARA RGL MAUI PINCARPLE CO MAUI RINCARPLE CO MAUI RINCARPLE CO HALEARALA RANCH CO STATE OIVISION OF PARKS AMFAC RROPERTYS
MARAHURA ROINT 9-3.1 5785 02 KOCDA MARAHUL 975 A 5864 03 4 MPEA MANA 1022 092 03 4 MPEA M-1031 0977 02 KOCDA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 525 01 44 MPEA MOUNA 114-5 A 5868 02 LHME MALUA 011CH 1351 A 5888 02 LHME M-4ALUA PIVER 1355 603 01 LHME	2 21 52 159 2 3 21 55 159 3 3 22 02 159 4 2 21 55 159 3 3 22 07 159 3 1 22 11 159 2 2 22 04 159 3 3 22 02 159 4 2 22 04 159 2 2 22 04 159 2 2 22 04 159 2	7 52 3 140 3 11 3 300 5 3500 3 3500	94 9 94 9	A A O		U S COAST GUARO OLOKELE SUGAR CO KEXAMA SUGAR CO LTO GROVE FARM COMPANY U S GEO SURVEY LIHUE PLANTATION CO. U. S. GEO. SURVEY AFRAMA SUGAR CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO LIHUE PLIN CO LTO	KAHULUI WB AP 398 F KAILIILI 436 KAILUA 446 KAUAULA INTALE 375 KAUPO RANCH HOUSE 259 KEAHUA 410 KEANAE 346 KEAWAKAPU BEACH 260.2	2552 0 2572 0 2630 0 2679 0 3433 0 3576 0 3910 0 4091 0	1 MAKAWAO LAHAINA 2 HANA 3 MAKAWAO 1 HANA 2 MAKAWAO	1 1 1 4 2 3 1 2	20 52 20 50 20 42	156 38 156 26 156 16 156 13 156 38 156 08 156 23 156 10 156 27	650 2000 48 2520 700 1585 1020 480 980 15	M10 7A 8A	91 5A MO 8A	200		EDWARD CHANG RIONEER MILL CO LTD U S WEATHER BUREAU E MAUI FRR CO LTO E MAUI FRR CO LTO RIONEER MILL CO LTD KAURO RANCH MAWAIIAN COM + SUG CO E MAUI IRR CO LTO A. L. CORELL
PH #AIN[HA 115   91.55 01 HANALE1   PRINCEVILLE RANCH 117   18.55 01 HANALE1   PRINCEVILLE RANCH 117   18.55 01 HANALE1   PRICH VICTOR   10.55 01 A. AINEA   RUHH 15.13   A. 82.17 02 LIHUGE   RUHH 15.51   A. 82.17 02 LIHUGE   STANDER CAMP 1055.1   60% 021 LIHUGE   AINEA	1 22 12 159 3 1 22 13 159 2 3 22 01 159 4 2 21 58 159 2 2 21 57 159 2 2 22 04 159 2 2 21 54 159 3 2 21 58 159 3 2 22 01 159 2 2 22 01 159 2	101 295 2 1660 329 7 420 7 740 215	64	A A A A A A A A A A A A A A A A A A A	100	MC BRYDE SUG CO LTO PRINCEVILLE RANCH KEKAMA SUGAR CO LTO GROVE FARN CO LTO GROVE FARN CO LTO LIHWE PLANTATION CO- MC BRYDE SUG CO LTD MC BRYDE SUG CO LTD LIHWE PLIN CO LTO LIHWE FLIN CO LTO	KULA HEIGHTS 323-2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 A LAUNIUPOKO VILLAGE 372 A LUPI UPPER 442 MAHINAHINA 466	4634 0 4887 0 5003 0 5006 0 5177 0 5404 0 55408 0 5665 0 5715 0	LAMAINA HAKAWAO LAHAINA	2 2 4 4 4 4 4	20 39 20 54 20 47 20 42 20 53 20 51 20 51 20 53 20 57		90 260 5788 2520 3004 45 1280 220 1240 715	7.A 7.A	7A 7A 6A 7A 7A VAR 7A MO 7A		c s	HAMAIIAN COM + SUG CO KIRAMULU CATTLE COMPANY MAUI PINEARRLE CO KENNETH HILLEY KULA SANATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO
#A1A4 PC3 925 33 #A1MEA #A1CA5 RA1 105 A 9467 02 LIHUL #A1CA5 RA1 105 A 9627 02 LIHUL #A1CA5 LAA1 331 A 9959 02 KULOA ISLAND UF CAHU AHLIANU LUOP #39112 0055 01 KOLAUPOKC #1A1ELID N25 PC3 PC3 PC3 PC3 PC3 PC3 PC3 PC3 PC3 PC3	3 21 59 159 4 2 22 02 159 2 3 21 57 159 4 2 21 54 159 3	3 10 1 50 1 210 1 210 7 455		A A A		KERAHA SUGAR CO LTO LIHUE PLANTATION WAIMEA SUG MILL CO HC BRYDE SUG CO LTO DON MITCHELL WAIAHOLE WIR CO LTO BOARD OF WIR SURRLY	OLINOA 332 OLOWALU 296 OLOWALU GULCH 377 PAAKEA 350 PAIA 406	7040 0 7059 0 7066 0 7194 0 7566 0 7674 0	4 LAHAINA 6 LAHAINA 1 MAKAWAO 6 LAHAINA 6 LAHAINA 1 HANA 1 WAILUKU 2 HANA 1 MAKAWAO 3 WAILUKU	1	20 59 21 02 20 48 20 49 20 51 20 49 20 55 20 41 20 55 20 49	156 36 156 0T 156 23	1290 340 4127 7 800 1260 170 3570 485 167		VAR VAR 7R MO 6A 6A W1 7A	1	5	MAUI RINEAPPLE CO MAUI RINEAPRLE COMPANY MAUI CO WATER DERT RIOMEER MILL CO. RIOMEER MILL CO LTO FMAUI RR CO LTO HAWAIIAN COM + SUG CO KAUBO RANCH CO. HASEROT RINEAPPLE CO. WAILURU SUGAR CO.
0.ERETANIA RUMPING 51A 0211 021 HONOCULU AND 68 207 CE LAIE C 0.000 00 No. 100 C 100	2 21 19 157 5 3 21 26 158 0 1 21 39 157 5 1 21 26 157 5 2 21 21 157 5 3 21 21 158 0 2 21 23 157 5 5 21 33 158 0	7 13 5 20 7 13 5 565 2 42 4 170 1 274	9A	A A BP IA IA	n nn n	DEL MONTE CORRORATION BIOLOGICAL SCIENCE DEPT U DF H MARINE LAB J. L. BANNING EMA PLANTATION CO BOARD OF WATER SUPPLY WAIALUA SUGAR CO. INC.	PUU KUKU1 MAKAI 472 A PUUNENE 396 RUU RAKI 352 SPRECKELSVILLE 400-2 TWIN GATES 261-3 UKULELE 333	8336 0 8444 0 8543 0 8553 0 8688 0 8742 0 8744 0	I HANA 4 LAHAINA 3 WAILUKU 1 HANA 3 WAILUKU 3 MAKAWAO I MAKAWAO 4 LAHAINA	3 1 3 3	20 41 20 50 20 55 20 53 20 46 20 54 20 48 20 48	156 27 156 03	6150 2980 2500 60 2160 85 1310 5230 75		VAR HO HO 7A 8A VAR MO 7A 8A			STATE DIV OF FORESTRY E MAULIFR CO LTD RIONEER HILL CO LTD HAWAIIAN COM + SUS CO EAST MANN COM + SUS CO KAOMOULU RANCH HALEAKALA RANCM CO RIONEER HILL CO LTO LUPPALAKUA RCH CO LTO
HONOLULU GOSERV 21.2.2   1916 03 EVA PURDICULU GOSERV 21.2.2   1916 03 EVA H 7.9 A C FR 51A 707   1140 02 EVA KARLAKET 174.6   22.00 02 EVADULULU KARLAKA 883   A 2642 01 KODILULU KARLAKA 883   A 2642 01 KODILULU KARLAKA 1815 177   2000 02 EVALUPAK KALLUK 176 51A 791.2   2000 02 EVALUPAK KARLAKA 1749 - 77   2000 02 EVALUPAK KARLAKA 1749 - 77   2000 02 EVALUPAK	3 2 1 19 158 0 2 21 20 157 5 2 21 10 157 5 2 21 18 157 5 2 21 18 157 4 1 21 31 157 5 1 21 41 157 5 1 21 24 157 4 2 21 23 157 5	2 12 50 3 10 8 80 7 25 5 10 9 9 10	MIO MI MIO MI BA	0 8A 71 8A	A A TO TO TO TO TO TO TO TO TO TO TO TO TO	H. V. VON HOLT U.S. COAST & GEODETIC U.S. WEATHER BUPEAU ESSA-WEATHER BUPEAU H.S. R. A. EXP. STATION MRS. MILLIE ZAPATA MAIAHOLE WIR CO.LTO KAHLUA FIRE STATION BOARD OF WIR SUPRLY HAWAII NATIONAL GUARD	WAHIKUL  364 WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMO  449 WAIKAMO  DAM 336 WAIKAW 390 WAILUA IK1 348 WAILUAU 392	8955 0 9275 0 9315 0 9332 0 9335 0 9376 0	HANA WAILUKU	4 3 4 1	20 54 20 55 20 57 20 52 20 49 20 52 20 48 20 54 20 38	156 40 156 31 156 32 156 12 156 14 156 31	580 320 300 1200 4320 470 2630 200	8.8	8A 6A 6A WH VAR 6A		2 5	DEDMARADA RER CO LTD  WAILURU SUGAR CO  W MALL IRR CO LTD  HAUL IRR CO LTD  WALLURU SUGAR CO  EAST MALL IRR IGATION CO  ST. ANTHONYS BOYS SCH  HALEARALA RANCH CO
EARGORE MALKA 781 3113 01 COOLANGRO CARACHER RANCH 838 A 3123 01 ROOLANGRO CARACHER MARKA 795.1 3220 01 ROOLANDO CARACHER MARKA 795.1 3220 01 ROOLANDO CARACHER MARKA 795.1 3220 01 ROOLANDO CARACHER MARKA 795.1 A 373.6 05 RAIALUA RANCHER MARKA 906.3 3825 02 ROOLANDO CARACHER MARKA 906.3 3825 02 ROOLANDO CARACHER MARKA 906.3 3825 02 ROOLANDO CARACHER MARKA 906.3 3625 02 ROOLANDO CARACHER MARKA 906.3 3625 02 ROOLANDO CARACHER MARKA 906.3 3625 02 ROOLANDO CARACHER MARKA 906.3 3625 02 ROOLANDO CARACHER MARKA 906.5 906.7 06.4 ANAINAE	1 21 25 157 4   1 21 23 157 4   1 21 36 157 5   2 21 21 157 5   5 21 35 158 1   5 21 34 157 5   1 21 40 158 0   5 21 33 158 0   5 21 30 157 5	7 365 4 10 2 614 1 20 9 1180 0 1050 725 1 160		7A 3A 7A 71 7A 3A	1 4	STATE HOSPITAL  KANEOHE RANCH CO SEORGE M. SWIFT  KAMEHAMENA SKMOOLS  MAJALUA SUGAR CO. INC.  MAJALUA SUGAR CO. INC.  MAJALUA SUGAR CO. INC.  C. F. OFFICER HEOG  USN AMMUNITION DEP	ISLAND OF HAWAII  AMUA UM1 75 AWINI 182-1 EAST HONOKAME 183-2 HAINA 214 HAKALAU 142 HALEMAUMAU 52 MAI FOILE 117	0040 0 0190 0 0450 0 0840 0 0905 0 1033 0	5 N KONA 1 N KOMALA 1 S KOMALA 1 HAMAKUA 2 S HILO 3 KAU	5 1 1 2 3	19 38 20 10 20 07 20 06 19 54 19 24	155 47 155 43 155 43 155 28 155 08 155 17 155 24	5220 1870 4240 460 105 3648 5770	7A	MO WI MO 7A 7A MO		ç	GREENWELL RANGM KOHALA DITCH CO LTD KOHALA DITCH CO LTD HONOKAA SUGAR CO PEPEERKO SUGAR CO- HAWAII NAT PARK KUKAIAU RANCH CO
LALAUAEI ## TUNNEL & 5650 D & ALAMAE LULUU 718, 218 LUARAILLO MORE 724-2 5655 D 1 KOGLAUPLO LUARAILLO MORE 724-2 5655 D 1 KOGLAUPLO MARAMA YALLY 804-1 8781 D 4434NAE MARAMA YALLY 804-1 8781 D 4434NAE MARAMA YALLY 804-1 8100 D 1 KORULUL MAROA 1 LURU 2 110 6110 D 10 KORULUL MAROA 1 LURU 1 189.1 6110 D 22 9 1 KORULUL MAROA LURU 1 189.1 6110 D 22 9 1 KORULUL	4 21 26 158 0 4 21 29 158 0 1 21 24 157 4 2 21 17 157 4 4 21 28 158 1 4 21 29 158 1 2 21 19 157 3 2 21 19 157 4 2 21 20 157 4	2 240 2 40 3 25 2 160 9 536 9 220 9 410	8A I	YA YA BA BA		U S NAVY MILNOR LUM LUNALILO HOME CAPITAL INVEST CO CAPITAL INVEST CO CAPITAL INVEST CO U S COAST GUARD MMS.JOHN H.BEAUMONT BOARO OF WIR SUPPLY EXP. STA. H.S.P.A.	HILO WB AIRPORT 87 HOUVALOA 70 HOUVALOA BEACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181.1	1 1 3 3 9 0 2 1 4 9 2 0 4 1 5 5 7 0 4 1 5 6 2 0 1 6 6 5 0 1 7 0 1 0	Z MAMARUA Z KAU 1 N KOMALA 2 S HILO 4 N KONA 4 N KONA 4 S KONA 2 N HILO I N KOMALA 2 S HILO 4 N KONA	1 2 4 4 4 2	20 14 19 43 19 38 19 37 19 27	155 28 155 16 155 50 155 50 155 55 155 59 155 53 155 09 155 44 155 09 155 53	9220 3971 600 27 3220 14 1089 300 800 1100	HID	7.A	HID	E J	STATE DIV. OF PARKS HAWAII NAT PARK KOMALA SUGAR CO U.S. WEATHER BUREAU STATE DIV. OF FORESTRY VARIOUS RANCH MANOS CHARLES HUA PEPEEKEO SUGAR COMPANY KOHALA DITCH CO. LTD PEPEEKEO SUGAR CO. STATE DIV. OF FORESTRY
MANAGURA 770 6395 DC WATANAGURA 78 4 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 6 MANAGURA 78 78 78 78 78 78 78 78 78 78 78 78 78	2 21 21 157 5 4 21 31 158 0 4 21 21 157 4 2 21 21 157 5 5 21 34 158 0 2 21 20 157 4 2 21 21 157 6 3 21 25 157 5 2 21 17 157 4 5 21 26 158 0	9 4025 9 1046 0 410 2 1060 5 995 3 1640 8 240 6 700	7A H	IR FA		JOHN A ROXBURGH FEDERAL AVIATION ADM. BOARD OF WIR SUPPLY BUARD OF WIR SUPPLY WAIALUA SUGAR CO. INC. BOARD OF WIR SUPPLY BOARD OF WIR SUPPLY JAMES MUMENO MRS ALFRED FRANCO. JR. PINEAPPLE RESEARCH INST	HUALALAI 72 HUEHUE 92-1 KAALA IKI 12 KAMMALOA 29 KAHIAWAI 3-4 KAIIMALIU 73-2 KALAPAN NO 1 67-8 KAMAOA NO 2 5 KAMIAOA I 192-2	2151 0 2156 0 2249 0 2327 0 2512 0 2751 0 2894 0 3048 0	4 N KONA 4 N KONA 3 KAU 4 N KONA 3 KAU 4 N KONA 2 S HILO 3 KAU	3 4 2 3	19 42 19 45 19 08 19 30 19 08 19 32 19 20 19 02	155 52 155 59 155 34 155 55 155 46 155 56 155 02 155 40	6250 8190 1960 1340 1330 3700 1500 10 1375 2670	7A	7A 8A 7A VAR WI		¢	STATE DIV OF FORESTRY STATE DIV OF FORESTRY MUENUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO. RUSSELL P. SWHH STA HAWALI VOLCANOES NAT PK HAWALIAN RANCH CO PAREER RANCH
PUNALUU 88- UNCHONGA CRATER 70% UNCHONGA CRATE	1 21 35 157 5 2 21 19 157 5 1 21 39 158 0 1 21 22 157 4 2 21 20 157 5 2 21 20 157 5 2 21 18 157 5 5 21 30 158 0 1 21 28 157 5 2 21 17 157 4	7 2000 0 1325 9 75		A A A A A A A A A A A A A A A A A A A		KAHUKU PLTN CO NAT MCM CEMETERY JACK N. WHEELER REV R CULLINAN BOARO OF WATER SUPPLY R. E. WHITE OEPT OF GEOSCIENCE WAIALUA SUGAR CO. INC. WAIAHOLE WIR CO LID SPENCER TINKER	KAHUELA AIRPORT 191 KAPAPALA RANCH 36 / KAPOHO LANDING 93.5 / KAWANA 88.1 KAWANNI LOWER 193 / KEANA 92 KEALWA CAMP 22.1 KEALAKEKUA 26.2 KEANKOLU CAMP 124.2	3300 0 3369 0 3510 0 3770 0 3872 0 3925 0 3977 0 4098 0	Z PUNA Z S HILO I HAMAKUA Z PUNA 3 KAU 4 S KONA Z HAMAKUA	2 1 2 3 4 2	19 17 19 30 19 41 20 05 19 38 19 14 19 30 19 55	155 39 155 02 155 29 155 55 155 21	2665 2140 290 1123 1080 280 1700 1450 5280	GA GA	8A 6A VAR 6A WI 8A		u 000	HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC. BOARD OF WATER SUPPLY SHIGEO MASUVA HONOKAA SUGAR CO PUNA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COMPANY HISS AMY GREENWELL STATE DIV. OF FORESTRY
#1841/4 #87 A 3199 09 #1841/4 #87 #8741/4 #87 A 3199 09 #8741/4 #8741/	2 21 16 157 4 2 21 18 15T 4 2 21 18 15T 4 1 21 21 157 4 5 21 38 158 0	1 20 9 1575 6 800 3 766 9 10 5 176 5 186 6 66	8A	7A 9A V1 40 V1 1A V1		WATALUA SUGAR CO. INC. CAPITAL INVEST CO CAPITAL INVEST CO WAIAMOLE WIR CO LTD WAIAMOLE WIR CO LTD HONOLULU ZOO BOARD OF WIR SUPPLY WAILUPE VALLEY SCHOOL ST DIV WIR LAND DEV WAIALUA SUGAR CO. INC.	KEHEMA 181.2 KIOLAKAA A + F 6 KIPA 89.2 KOHALA 179.1 KOHALA MISSION 175.1 KOHALA MISSION 175.1 KOHALA MISSION 175.1 KOHALA MISSION 175.1 KOHAME LOWER 196 KOMA AIRPORT 68.3 KOMA VILLAGE 93.8 KUKAIJAU 222 KUKJIHAFIF HIC 199	4625 0 4632 0 4670 0 4680 0 4764 0 4765 0 4815 0 4928 0	Z S HILO I N KOHALA I N KOHALA I N KOHALA I MAMAKUA 4 N KONA I MAMAKUA	1 1 1 1 4 4 1	20 07 19 04 19 44 20 14 20 14 20 05 19 39 19 52 20 02	155 45 155 38 155 09 155 47 155 48 155 38 156 01 156 55 155 21 155 35	3840 1925 1490 309 960 537 720 17 15 840 980	7A BA	W1 8A 8A 6A 6A		2	KOHALA OITCH CO LTD STATE DIV OF FORESTRY MANNA KEA SUGAR CO. AOHALA SUGAP CO AOHALA SUGAP CO AOHALA SUGAR CO AOHALA SUGAR CO HAWAIIAN AIRLINES AOHA VILLAGE RESORT HIL HAMALUA MILL CO HONORAA SUGAR CO HONORAA SUGAR CO
#ILMCRMTNA RIST 721 9980 02 ANNOUNCED INCAMO ST MOLTHAI (1998) 7 MOLTHAI (	3 21 23 158 0 2 21 18 157 4 1 21 12 156 5 1 21 04 156 5 1 21 06 157 0 1 21 06 157 0 1 21 12 157 1 1 21 12 157 1 1 21 09 157 0	7   1100 9   30 2   60 1   17 1   76 2   560 2   87	М	BA ID BA BA		OAHU SUGAR CO BOARD OF WIR SUPPLY  KALAUPAPA SETTLEMENT W. J. CARSTEN MOLUKAI RANCH LTO MOLOKAI GENERAL HOSPITA MOLOKAI RANCH, LTO. OEL MONIFE CORPORATION	KUKJIMAELE MILL 206 / KULANI CAMP 79 KULANI MAUKA 76 KULANI MAUKA 76 KULANI SCMOOL SITE 78 / LALAMILO FLO OFF 191.1 LANIHAU 68.2 LAVA TREE PARK 66-1 MANUKA 2 MADUKA 64 REACH 98	5011 0 5018 0 5021 0 5260 0 5330 0 5460 0 6134 0	I HAMAKUA 2 S HILO 5 N HILO 2 S MILO 1 S KOMALA 4 N KONA 2 PUNA 3 KAU 4 S KOHALA	1 2 5 1 4 2	20 08 19 33 19 35 19 35 20 01 19 40	155 34 155 18 155 27 155 41 155 58 154 54 155 50	300 5170 8300 5735 2615 1530 650 1760	84	MI WI BA BA			MONOMAM SUGAR CO ST DEPT OF SOCIAL SER U S WEATHER BUREAU ST DEPT OF SOCIAL SER STATE DEPT OF L + N RES KONA EXRERIMENT STATION STATE DIVI OF PARKS STATE DIVISION OF PARKS STATE DIVISION OF PARKS
MAR) [MI] 542 6136 01 MOLOKAI MALNAL A 51] A 6199 01 MOLOKAI MALNAL A 51 A 6199 01 MOLOKAI MALNAL A 51 A 633 01 MOLOKAI PUUDMORU MANCH 542+1 8549 01 MOLOKAI	1 21 04 156 4 1 21 08 15T 1 1 21 09 157 0 1 21 09 156 4	8 20 3 1075 5 450 4 700	0 6A	PA PA BA SA		DEL MONTE CORPORATION H S R A LIBBY MCNEILL + LIBBY ALOMA AIRLINES PUUOHOKU RANCH MOLOKAI RANCH	MIDDLE PEN 147.1	6268 0	5 HAMAKUA N KONA 1 N KOMALA 3 KAU	- 4	19 37	155 35 155 58 155 50 155 30	11146 475 1380 600	MID	MIO 8A VAR MO			U S WEATHER BUREAU KONA EXRERIMENT STA KAMUA RANCH HAWAIIAN RANCH CO

STATION	K NO.	DIVISION	DISTRICT	AINAGE 1	THE	TODE	CONGITUDE	ATION		SERV TIME TAB	ANI	D	OBCERVER	STATION			DISTRICT	AGE 1	UDE	LONGITUDE	ATION		SSERV TIME TABI	ANI	D	Obcernier
STATION	INDEX	DIVIE	DIZIKICI	DRAIN	1 8 7	ru	LONG	ELEVA	TEMP.	PRECIP.	EVAP.	SPECIAL OLD	OBSERVER	STATION	T. C.	DEPEN	District	DRAIN	ATI	LONG	ELEVA	TEMP.	PRECIP	EVAP.	SPECIAL	OBSERVER
ISLANO OF MAWAII												_		ISLANO OF HAWAII												
APOOPOO 28 AULU FOPEST 38.6	6731 A 6806 7131 7166 A 7185 7204	03 04 02 01 02 04 02 01	KAU S KONA PUNA N KOHALA N MILO S KONA	3 4 2 1 2 4 2	19 19 20 20 19 19	04 28 19 14 01 16 34 05	155 07 155 35 155 55 155 08 155 45 155 17 155 53 155 00 155 26 155 22	1530 673 395 1400 75 430 1270 445 415 800	7A 7A	7A VAR 6A 7A			PUNA SUGAR CO HUTCHINSON SUGAR CO KONA EXPEPIMENT STA HAWAII VOLCANDES NAT PK KOMALA SUGAP CO LAUPAHOEHOE SUGAP CO HISS C LECONAPO BOAPO OF WATEP SUPPLY PAQUHAU SUGAP CO HAMAKUA HILL CO	PUU MÄL! 113 PUUOKUMAU 167 PUU OO 82 PUU WAAWAA 94.1 SAOOLE POAD 1 64	A 84 A 85 A 85 A 85 A 86 A 86	60 ( 15 ( 48 ( 50 ( 55 ( 75 ( 75 (	05 MAMAKUA 14 N KONA 11 MAMAKUA 11 N KOMALA 12 S HILO 15 N KONA 12 S HILO 13 KAU 14 MAMAKUA		19 34 1 19 55 1 20 12 2 19 44 5 19 47 2 19 42 3 18 57	155 36 155 49 155 26 155 50 155 51 155 12 155 41 155 41 155 23	6340 2520 2340 400 305		MO MO 7A 6A 7A WM WT			STATE OIV OF FISH-GAM GPEENKELL RANCH KURAIAU PANCH CO LTD KOHALA DITCH CO LTD W. H. SHIPMAN LTO DILLINGHAM PANCH INC BOAPO OF WIT SUPPLY HUTCHINSON SUGAR CO FEOEPAL ELECTPIC COPELURAIAU RANCH CO FEOEPAL ELECTPIC COPELURAIAU RANCH CO
AMALA 21 AHOA 65 AKAO 37 APAIKOU 144.1 APAIKOU MAUKA 149.1 EPEEKEO MAKAI 144	7721	02 03 02 02	PUNA	2 3 2 2,	19 19 19	30 22 47 47	155 29 154 57 155 28 155 06 155 08 155 05	870 670 5000 200 1270		6A 6A MO 7A 7A 7A			HAWAIIAN AGP CO PUNA SUGAR COMPANY HAWAIIAN PANCH CO. INC. MAUNA KEA SUGAR CO. MAUNA KEA SUGAR CO. PEPEEKE SUGAR CO.	UPOLU POINT USCG 159. WAIANEA SCO 88.2 WAIKANONOULA 178.6 NEW STATIONS	93	125 0	N KOMALA N KOMALA		2 19 40	155 53 155 08 155 47	61 1050 3630		8A 7A			U S COAST GUARD SHINICHI KANESHIPO KAHUA PANCM
OMAKULOA 107 UAKO 95.1	A 6063 6186	02	S HILO HAMAKUA KOHALA HAMAKUA	2 5	19	45 59	155 10 155 32 155 50 155 24	1730 6511 5		VAR 6A MO	k		STATE OLV OF FURESTPY STATE OLVISION OF PARKS EPWIN H. PAPP KUKALAU RANCH CO	AHUIMANU LOOP 839-12 PUPUKEA HEIGHTS 896-4			1 KOOLAUPOKO			157 51 158 02	900			c		OON MITCHELL JACK N. WHEELER

TORAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN S-HORTH-CENTRAL 4-WESTERN 1-CENTRAL 4-WESTERN 1-CENTRAL 4-WESTERN 1-NORTHEASTERN 1-CENTRAL 4-WESTERN 1-NORTHEASTERN 1-NOR

#### REFERENCE NOTES

Additional information regarding the climate of Hawali may be obtained by writing to the Environmental Science Services Administration Regional Climatologist, P. O. Box 3650, Homolulu, Hawali, or to any Weather Eureau Office near you. Additional precipitation data are contained in "BOURLY PRECIPITATION DATA HAWAII".

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this bulletin are Temperature in 'F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are temms of degreev Resultant wind is the vector sum of wind directions and speeds divided by the number of observations

OBSERVATION TIME Data in the "Monthly Extremes"; "Daily Precipitation" table, "Daily Temperature" table; and "Evaporation and Wind" table are for the 24 hours ending at time of observation unless indicated otherwise by reference letters in the Station Indea. The Station Indea shows observation time in local areaded time.

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. Max and Win in "Evaporation and Wind" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

NORMALS for all stations are climatological standard normals based on the period 1931-1960.

STATION NAMES Basain state key numbers are included following station namew in the ceveral tables

DELAYED DATA AND CORRECTIONS will be carried only in the June and December lesues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals may be found in the annual lesue of this publication.

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING

- No record in the "Supplemental Data" table, "Dally Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station index.
  - No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or dates.
- ++ Highest observed one minute windspeed. This station is not squipped with an instrument to measure fastest mile data.
- \* Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name in "Climatological Data" table. "Bally Prodylistics" table, and "Station Index"; indicates amount carried in the "Total" column in for the period from last ensurement of a preceding must though the last measurement of the current south. See "Bally Precipitation" table of this and previous bulletims for dates of measurement. There gages are read only once monthly, measurements made on the first of a mount have credited to the last day of the preceding month.
- B Adjusted to a full month
- J "Supplemental Data" table
- W One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage.
- T Trace, as amount too small to measure
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- AR Observation made after rain
- th Special Column of Station index indicates Recording Station. Bourly precipitation values are processed for special purposes, and are published itser in the 'Bourly Precipitation Data' builetts. If daily assourate are published in Citication Special has' buileting they are from a separate non-recording gage, except where indicated by reference 'R'. Such assourate may differ from amounts published from the recording gage in the "Bourly Precipitation Data" builetin.
- MO Gage read oncs monthly, usually on the last day
- OC Gage readings at periods varying from a few eeeks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December Issue, or as delayed data in the June issue of this publication.
- SS Observation time is near subset
- VAR Observation time is variable
- WI Gage read weekly or irregularly only.
- $\ensuremath{\mathtt{WM}}$  Gage read eeekly and last day of month.
- # Thermometers are generally exposed in a shelter located a few feet above sod-covered ground; bowever, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

Stations appearing in the tables with no data were either missing or received too late to be included in this issue.

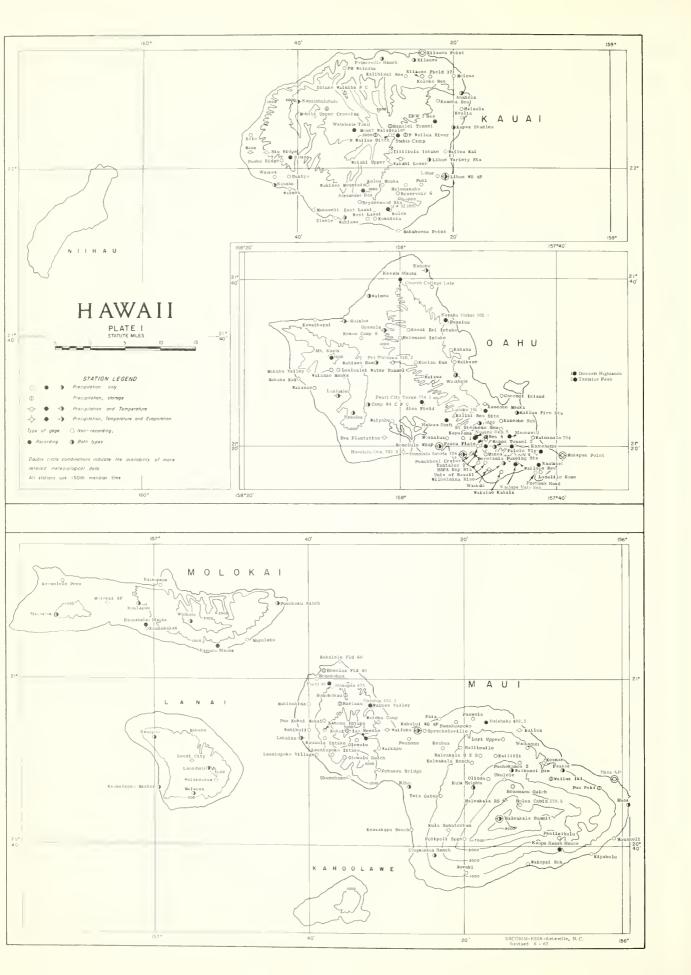
General weather conditions in the U. S. for each month are described in the publications MONTHLY WEATHER REVIEW, CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

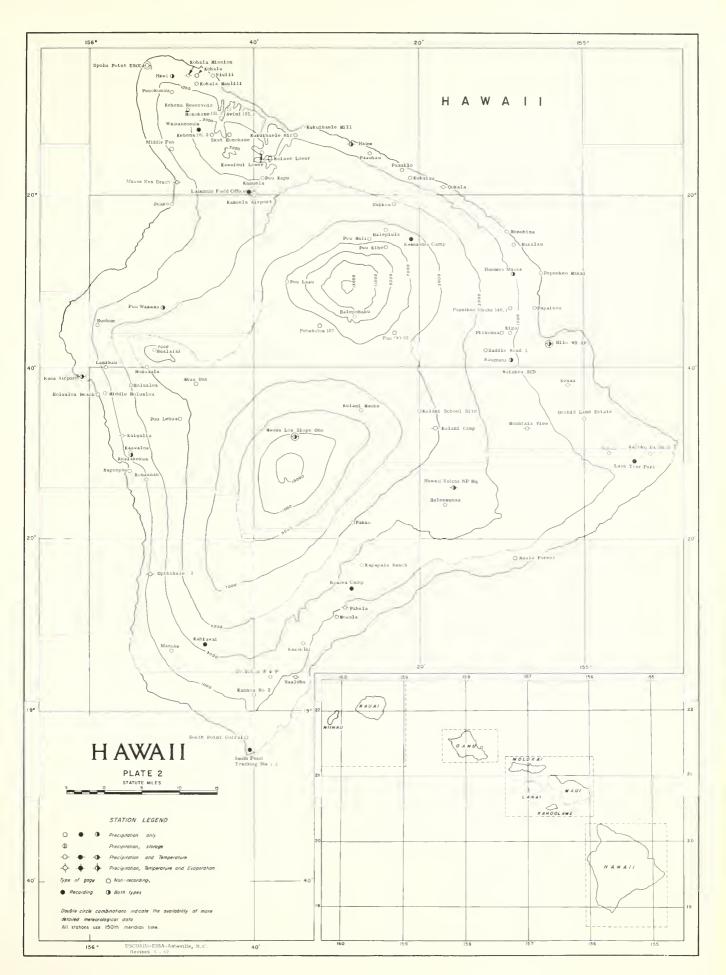
information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1957 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Meather Eureau stations may be found in the latest annual issue of Local Climatological Data, price 15 cents. These publications may be obtained from the Superintendent of Document the address shown above.

Subscription Price: 20 cents per copy, southly and annual; \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and scoep orders should be made payable to the Superintendent of Documents. Resittance and correspondence regarding subscriptions should be eent to the Superintendent of Documents, Covernment Printing Office, Subsingtion, D. C. 2040.

USCOMM-ESSA-ASHEVILLE -3/3/69-890

HAWAI I









CLIMATOLOGICAL DATA NIVERS

U.S. DEPARTMENT OF CO....

MAURICE H STANS, Secretary

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION APR
ENVIRONMENTAL DATA SERVICE

18
1969

HAWAII DECEMBER 1968

Volume 64 No. 12

CLIMATOLOGICAL DATA

															1	`			, , - y					
			1	1	Ter	mper	ature				1			_	1	H. 8	301	Preci	pitation			1		
Station					7					25	Ma	o. of	Days			mal	Day	- argin	Sno	w. Sleet		+-		Days
Salou		Average	Average Minimum	Average	Departure From Normal	Highest	Date	Lowest	Date	Degree Days		32° or Below		$\overline{}$	Total	Departure From Norm	Greatest D	Date	Total	Max. Depth on Ground	Date	.10 or More	.50 or More	1.00 or More
* * * * ISLANO OF KAUAI																								
ANAHOLA 1111 KANALOHULUHULU 1075 KAPAA STABLES 1104 KILAUEA FIELO 17 1135 KILAUEA POINT 1133	A A A	65.4M	49.8M	57.6M		73 87	10	40	30		0	0	0	0	32.58 21.77 28.25 14.44 9.86	27.18	14.90 15.75 2.95	1	.0	0 0 0		13	7	4
KOLOA 936 LIHUE W8 AP 1020.1 MANA 1026 N WAILUA OITCH 1051 PH WAINIHA 1115	A R A	76.5 81.0M	65.0 64.2M	70.8 72.6H	- 1.4	82 86	6 12	59 60	29 20+		0	00	0	0 0	25.43 22.91 14.40 43.77 15.77	17.81 17.73 11.10	11.24 3.67 19.00 3.00	1	.0	0 0 0		11 12 15	7 7 10	5
PUEHU RIOCE 1040 WAHIAWA 930 WAIAHI LOWER 1054 WAIMEA 947	A	78.0	58.1	68.1		85	10	50	28+		0	0	0	0	19.24 15.54 26.98 18.95	11.05	8.97 5.25		.0	0 0 0			10	
ISLAN0 * * *				68.7											22.14				.0					
ISLANO OF DAHU HONOLULU OBSERV 702.2 HONOLULU WBFC 703 KAHUKU 912 KANEDHE MAUKA 781 KOOLAU OAH 833	R A	79.7 H 78.3	65.7 M 67.7	72.7 M 73.0	9	84 85	7	59 60	30+ 27		000	0 0 0	0 0 0	0 0 0	10.14 9.63 10.16 14.56 14.29	6.64 5.88 7.71 4.29	3.64 2.20 4.60 3.23	25	.0	0 0 0		11 11 12 14	6 8 7 8	2 3 6 5
LUALUALEI 804 MAKAPUU POINT 724 NUUANU RES 4 783 OPAEULA 870 PALOLO VALLEY 718	Α	76.6M M	67.7 H	72.2M M		88 84	2 10	60	27+ 27		0 0	0	0 0	0	V14.69 9.57 12.32 4.15 20.22	6.26 1.26 - 2.82 6.91	1.70 3.34 3.24	25	.0	0 0 0		12	7	4
PRI WAHIAWA 820.2 PUNALUU 884 WAHIAWA OAH 863 WAIAHOLE 837 WAIALUA 847	A A A A	77.9M	61.4H	69.7M	1.0	87		55 57	31+		0	0	0	0	14.83 13.90 13.85 20.71 9.40	6.42 5.46			.0	0 0 0				
WAIKIKI 717.2 WAIPAHU 750	A	81.2	66.5	73.9		85	25+	58	29		0	0	0	0	9.53	6.32	2.00	25	.0	0		11	6	5
ISLANO				72.3											12.32				.0					
* * * ISLANO DF HOLOKAI																								
KUALAPUU 534 HAPULEHU 542 MAUNALOA 511 HOLOKAI AP 524	A	77.6	66.1	71.9		83	12+	59	31		0	0	0	0	15.01 8.36 12.35 9.93	10.75 4.15 8.85	2.89 1.48 2.80 1.75	17	.0	0 0 0		12	7 8	4
ISLANO * * *				71.9											11.41				.0					
ISLANO OF LANAI LANAI CITY 672	A	72.8	61.8	67.3	. 8	82	11	57	29		0	0	0	0	8.67	4.95	2.47	26	.0	0		15	4	2
ISLANO  * * * ISLANO OF MAUI				67.3			:								8.67				.0					
HALFAKALA 8 E S 434 HALFAKALA RS 338 HANA AIRFORT 355 HONOKOHUA 493 KAANAPALI AIRPORT	A	60.3 79.7 80.4	42.7 67.2 66.8	51.5 73.5 73.6		70 84 86	31 11+	60	26 30+		000	0 0	1 0	0 0	13.32 9.14 8.41 8.94 8.24	2.86	3.21 1.95 1.33	26 26	.0	0 0 0 0		15 12 14	8 6 7 7	3
KAHULUI W8 AP 398 Kailua 446 Keanae 346 Kipahulu 258	R A	80.7 77.4M	64.3 62.5H	72.5 70.0M	2	87 83	7 6+	56 57	30		0	0	0	0	7.07 17.68 31.55 8.22	4.37 5.83 9.23 - 2.69	1.97 3.80	13	.0	0 0 0		12 17	6 8	6 2
KULA SANATORIUM 267 LAHAINA 361 PAIA 406		82.1	55.5	74.3	. 4	87	19+		31+		0	0	0	0	7.05 8.04	8.05 4.76 3.82	1.82 1.70	26 26	.0	0		10	6 8 9	1 2
ISLANO		80.5	65.4	73.0	.4	86	10+	01	31+		ú	0	0	0	13.01	8.69	2.78	23	.0	0		14	7	4
ISLANO OF HAWAII																								
HAINA 214 HAWAII VOLCNS NP HQ 54 HILO WB AIRPORT 87 HUEHUE 92.1 KAINALIU 73.2	R A	79.5 66.1 80.9 78.1	63.2 53.2 66.5	71.4 59.7 73.7 70.2	1.2	87	3 11+ 16+ 10+	59 46 60 50	30 12		0 0 0	0000	0000	0 0 0	18.39 20.54 24.82 6.64 8.29	10.69 10.40 9.64 4.28 5.28	4.82 3.00 6.70 2.67	1 13	.0	0 0 0 0		12 15 17	7 11 11 4	6 7 8 3
KAMUELA AIRPORT 191		73.7	49.8	61.8		79	10+	41	30		0	0	0	0	4.14		.78	17	.0	0		10	2	0

See Reference Notes Following Station Index SPECIAL WEATHER SUMMARY ON PAGE 151

## CLIMATOLOGICAL DATA

HAWAII OECEMBER 1968

ntinued					Төз	nper	ature											Precip	pitation					
												No. o	f Da	ув					Snov	w. Sleet		N	o, of	Days
Station		_ 8	. 8		re ormal					Days	M	lax.	ı	/lin.		ormal	ıt Day			epth und		or More	More	More
		Average Maximum	Average Minimum	Average	Departure From Nora	Highest	Date	Lowest	Date	Degree	90° or	32° or Below	32° or	0° or Below	Total	Departure From Norma	Greatest	Date	Total	Max. Depth on Ground	Date	.10 or ħ	.50 or h	1.00 or
EAAU 92 EALAKEKUA 26.2 ONA AIRPORT 68.3		83.0 78.9 82.5	64.2 63.7 67.7	73.6 71.3 75.1	2.6	88 82 86	24+ 15+ 9	60 59 63	26		000	000	000	0	32.59 7.95 5.91	16.42	7.35 2.30 1.30	18 18+	.0	0		8	11 4	3
UKUIHAELE HIC 199 ULANI CAMP 79		63.8M	45.6M	54.7M		72	8	33	31		0	0	0	0	15.33	6.11	3.62 3.10	18	.0	0 0		14	8	1
AUNA KEA BEACH 98 AHALA 21 OHAKULOA 107	А	84.3	68.9 62.9	76.6 70.8	.7	90 83	15	62 59	30 14		0	0	0		4.11 13.59 4.26	9.16	1.12		.0	0		7 14	9	
JAKO 95.1 JU WAAWAA 94.1	A														3.51 8.19	6.49	1.66		.0	0		11	5	:
MIKDA 118 Alakea SCD 88.2															15.20 28.19	3.71	3.60 5.32		.0	0		18	12	1
ISLAND				69.0											13.15				.0					

#### TEMPERATURE AND PRECIPITATION EXTREMES

HIGHEST TEMPERATURE: 90° ON THE 15TH AT MAUNA KEA BEACH 98, HAWAII

LOWEST TEMPERATURE: 28° ON THE 26TH AT MAUNA LOA SLOPE 08S, HAWAII

GREATEST TOTAL PRECIPITATION: 45.48 INCHES AT PAHOA 65, HAWAII

LEAST TOTAL PRECIPITATION: 4.11 INCHES AT MAUNA KEY 8EACH 98, HAWAII

GREATEST ONE-DAY PRECIPITATION: 19.00 INCHES ON THE 1ST AT N WAILUA DITCH 1051, KAUAI

#### SUPPLEMENTAL DATA

			Wi Speed -	nd - m.p.h.	)		Relat		idity ave	erages -		Num	ber of d	ays with	precip	itation			inset
Station	Resultant	Resultant Speed	Average	Fastest mile	Direction of fastest mile	Date of fastest mile	150? 2 AM	H MERID	IAN TIM 2 PM	IE 8 PM	Trace	.0109	.1049	.5099	1.00-1.99	2.00 and over	Total	Percent of possible sunshine	Average sky cover sunrise to su
HILO: HAWAII: W8 AIRPORT	22	2.3	6.7	27	NW	29	89	83	73	86	4	2	6	3	3	5	23	25	7.6
HONOLULU, OAHU, WBFC	4	3.4	9.9	35	NE	13	88	88	67	81	5	4	3	5	2	1	20	53	6+1
KAHULUI: MAUI: W8 AIRPORT	8	2.0	9.1	27	E	14+	89	87	70	84	2	5	6	5	1	0	19	55	6.7
LIHUE . KAUAI . W8 AIRPORT	3	1.7	9.1	26	E	14+	87	86	75	83	3	6	4	3	1	3	20	39	6.7

### HAWAII - DECEMBER 1968

#### SPECIAL WEATHER SUMMARY

What had been a relatively uneventful November was abruptly interrupted on Thanksgiving Day by a severe wind- and rainstorm, which lasted into December and ushered in a succession of damaging weather events.

At mid-morning on November 28, a fast-moving cold front followed by intense high pressure arrived on Kauai, accompanied by gale-force north-to-northeast winds. The strongest winds, which occurred after the frontal passage, heavily damaged the banana crop and blew down some trees and branches, causing scattered power failures. Makaha Ridge (elevation 1614 feet) recorded a peak gust of 92 m.p.h. at 1:43 p.m., and Kilauea Point a 1-minute average east wind of 63 m.p.h. at 8 p.m. Two waterspouts were sighted off Hanalei at 8:10 a.m. in the vicinity of the front. Rains of 4 to 8 inches occurred the next day in many parts of north and east Kauai.

The front reached Oahu the afternoon of the 28th, replacing brilliant blue skies by sudden heavy showers which drenched more than 20,000 spectators at the Thanksgiving Day football games in Honolulu Stadium. Winds were strongest to the lee of the mountains. Gusts, which reached 47 m.p.h. at Honolulu Airport, downed some trees and branches resulting in scattered power outages and heavily damaged plantings of sweet corn, lettuce, and snap beans. Twenty-fourhour rainfall ranged from 1-1/2 to 3 inches on the coastal plains to over 9 inches at the head of some of the leeward valleys. Minor flooding occurred in lowlands and in streets in downtown Honolulu.

Molokai and Lanai had northeasterly winds of 40 to 50 m.p.h. during the evening of the 28th after the front passed.

On Maui some trees and branches were blown down and stands of tomatoes and snap beans moderately bruised, but wind damage appears to have been relatively light. Rainfall varied widely, being heaviest on the northern and eastern slopes, which faced the post-frontal winds. The Haleakala Ranger Station, at an elevation of 7030 feet, recorded 14.10 inches in 24 hours ending the morning of the 29th, the greatest total reported on Maui.

Before reaching Hawaii the front became stationary, but enough rain fell on the Waimea area to ease the lengthy water shortage there and permit restrictions to be lifted.

Late on the 30th and early on December 1 a small low pressure center, which had formed on the stationary front in the vicinity of Molokai, brought torrential rains and severe flooding to eastern Kauai, where a dozen stations reported 24-hour totals of 10 inches or more. An inch in 10 minutes fell at Kapaa Stables and 4 inches in an hour at Anahola. were littered with debris, and part of the new 3-lane highway at Kapai washed out. Field erosion was heavy, and considerable silting and flooding damage was done to young sugarcane. Flood waters cascaded through the grounds of two major hotels near Lihue, dropping debris into swimming pools, washing away retaining walls and eroding beaches. Preliminary estimates placed damage on Kauai at \$156,000 to public property (roads, cleaning up, etc.), \$179,000 to agriculture, and \$43,000 to other private property.

During December 5 and 6, large northerly swell from an intense storm near Alaska crashed onto exposed beaches and coasts. On Hawaii Island it left boulders and pools of sea water at Onekahakaha Beach, about 4 miles from Hilo, and washed across the nearby roadway. On Maui, swell of up to 20 feet closed Kahului Harbor on the 5th. At Napili Beach sea water reached 150 feet above the usual high-tide mark and swept into the swimming pool and through the ground floor of a hotel there, and another at Kaanapali Beach. On windward Oahu, the surf smashed retaining walls and washed into several beachside homes between Kaaawa and Mokuleia.

On December 19 a sudden thunderstorm dropped 2 inches of rain on Honolulu in about 45 minutes during the morning rush hour, converted streets to rivers, and created a monumental traffic jam which delayed thousands of work- and schoolbound motorists by as much as an hour or two.

Other noteworthy weather events during the period included the heavy showers on Kauai on November 13, on Oahu on the 14th, and on Maui and Hawaii on the 15th, leaving amounts which ranged up to over 4 inches at Wailua Uka, Kauai. On the night of the 14th, snow blanketed Hawaii's highest mountains down to the 10,000-foot level in places on Mauna Kea and to 12,000 feet on Mauna Loa.

For November as a whole the northern islands were wetter than the southern. Kauai and Oahu exceeded November means everywhere. Their western sections had 2 to 4 times normal (individual gages 6 to 8 times), as did parts of

## HAWAII - DECEMBER 1968

#### SPECIAL WEATHER SUMMARY - CONTINUED

western and central Maui. By far the driest area was northeastern Hawaii Island, where Kohala to Pahoa had well under half, and in places under one-fourth, the November mean.

December was wet everywhere. Hardly a gage in the State had under the monthly mean, while many on eastern and southwestern Kauai, western and southern Oahu, on Molokai, Lanai, and on

western, central, and southern Maui, as well as in the Kona and Kau districts of Hawaii Island reported 3 to 6 times the normal.

As the following list shows, many gages, especially on Kauai, shattered their previous record totals for December, and in several instances for rainfall in any month.

Stations With More Rain in November or December 1968 than in Any Previous November or December

(25 years of record or more, only)

Station	Length of Record (Yrs.)	Previous Greatest November Total	November 1968
KAUAI			
Intake Wainiha PC Makaweli	52 76	47.65 Inches 11.90	50.61 Inches + 12.31
Station	Length of Record (Yrs.)	Previous Greatest December Total	December 1968
KAUAI			
Anahola Halaula Hanalei Tunnel Kapaa Stables Kealia Lihue Mana Niu Ridge N. Wailua Ditch N. Wailua River Waiahi Lower Waiahi Upper Waimea	38 66 30 28 69 64 47 29 40 29 39 35 55	14.60 Inches 22.25 33.60 14.76 17.45 21.72 12.79 17.21 35.26 26.10 22.53 28.00 14.80	32.58 Inches * 31.50 37.40 28.25 * 26.88 * 24.18 14.40 17.23 43.77 42.00 26.98 30.85 18.95 *
MOLOKAI			
Kalaupapa Kaunakakai	28 35	11.82 Inches 8.70	12.91 Inches 10.66
MAUI			
Kihei Launiupoko Intake Pauwela Ukumehame	65 55 52 39	8.64 19.18 16.06 11.74	10.45 20.20 16.87 11.98 *
HAWAII			
Kiolakaa A&F Napoopoo Pakao	39 28 40	16.50 6.81 15.50	17.70 7.08 17.90
+ - Gage overflowed			

+ - Gage overflowed + - Greatest in any month

Saul Price Regional Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

Russell Dorr Acting State Climatologist P. O. Box 3650 Honolulu, Hawaii 96811

## DAILY PRECIPITATION

	-													Dec	of M	onst		_		_			_				_			DECEM	8ER	1968
Station	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	lonth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ISLANO OF KAUA1																										,				,		
ANAHOLA 1111 A RYDESWOOD STA 985 A EAST LAWAI 934 A LEELE 927 A HALAULA 1110 A	21.98 22.64 19.17	*	9.51 8.58 8.23	1.10	.16 .01 .03 T					2.79 3.93 4.27 3.86 2.75	.01	.01	.16 .02 .10	.25 .04 .30	:	:	.13 .40 1.27 .35	.53 .97	4.00 .79 .30 .83 2.10	1.28	.03 .17 .22 .02	:	•	.60 .06 .11	.61 .36 .60 .21		2.07 3.38 3.51 3.27 2.56	.01				*
ALENANAHO 1006 A HUK1PO 945 LU11LIULA 1NTAKE 1050 A LNIAKE WAINIHA PC 1086 A KALIHIWAI RES 1131	33.48 18.02 36.38 25.14 13.56	4.00	7.40 4.86 .95 *	1.12 .12 .64 #	.26	9.02	.03	.08	.32	5.35 2.59 3.07 •	2.03		.03	.88 .95 6.10 .73	1.10	3.80	.62	1.27 1.09 1.00	.99 3.57 1.28	1.05 .27 .98 3.00 .74	.05 .28 .04	.30	.09	.06 .08 1.15 .81	.34 .51 1.00	4.11 5.85	3.38 3.68 2.29	.02	:	:	.13	•
ANALOHULUHULU 1075 ANEMA RESERVOIR 1092 A APPAA STABLES 1104 A EEALIA 1112 A	28.25	7.51	.13	1.70	1.38 1.00 .30 .39	.02		*04 * *	:	2.10 3.29 3.31 2.63 1.46			.52 .21 .14 .03	1.35 .45 .50	.02 * *	* 12 * *	.55 .10	.68	1.00 2.50 1.90	.29 .95 .62 .30	.05	1.12	.04	.85 .35 .80	.85 .36 .12 .15		6.85 2.89 2.02 2.08	• 02	•	. 02	.05	:
(ILAUEA 1134 ILAUEA FIELO 17 1135 A ILAUEA POINT 1133 (OLO 1033 OLO 936 A	11.04 14.44 9.86 13.60 25.43	.12 3.38		1.05	.36	.01	.03	* * *02	1.04 .77	1.20 1.46 1.47 4.63		.01 1.53	.78 1.12 .14 .16	.62	.05	.16 .06	.28 .63 .51 .18	.72	1.05 .68 .55 1.49	.39 .77 .02 .29 1.56	.04	.04	.09	.27 .52 .29	.32 .56 2.95 .26	.06 3.56	3.03 3.12 3.22	.02	•	٠	.04	
COLOA MAUKA 994 A COLOKO RES 1137 A CUKUJULA 935 A .IHUE VARIETY STA .IHUE 1020 A	34.33 15.27 16.98 21.41 24.18	:			.07 .32 .10 .28			* * * *13	•	4.83 2.37 4.83 3.37 4.90	.01	.03	.18 .44 .07 .09	.33 1.18 .20 .73	.05	:	1.68 .27 .62 .48	.86 .49 .82 .52	.62 .45 .15 .66	.67	.07 .04 .27	20	:	.03 .92 .06	.67 .35 .40 .83	:	3.72 3.16 3.06 2.10 2.31	.02	:	:	.02	•
.1HUE W8 AP 1020.1 R **AKAHUENA POINT 940.1 **AKAHUENA 965 A **ANA 1026 ************************************	22.91 10.07 13.59 14.40 54.40	. 45	1.29 .80 .67 .10	.67 .22 .10 .01	, 45		• 01	.05 3.20	.72	4.40			.47 .04	,38 •	.04 .08	.05 .13 .55 .05	.28	.20 .82 2.71 2.13	.61 .49 .87 1.60	.23	.04	.03			2.33 .06 2.75 .12	.42 .63 .02 3.25	.01		•		6.40	T
GUDAA 1145 A GUNT WALALEALE 1047 (IU RIOGE 1035 I WALLUA 01TCH 1051 A	17.23	4.42 2.99 19.00 1.27	4.75	2.48 .50 1.46	.13 .28 1.30 .11	.01	т	* .12 *	3.15 +	2.15 1.83 3.65 1.05	. 01 T	.05	. 45	.27 3.74 .70 1.76		1.50 *	5.04	1.95	1.95 4.33 0 1.77	• 72	.08 3.32 .03	1.35	.47 .08	.57 1.02	2.20	.83 4,56	1.92 5.04 .33			.01		
RINCEVILLE RANCH 1117 PUBHU RIOGE 1040 PUHI 1013 A ESSERVOIR 6 1004 A AMHIAWA 930 A	12.52 19.24 29.09 33.74 15.54	* 1 * 1	.08 5.60 4.82 6.65 5.35	.77	.27 .65 .17	.02		:	:	1.18 2.05 4.64 5.21 3.49	.01	.02	1.15 .05 .14	.57	.21	* * *	.22 .22 .54 1.63 .27	.99	.71 2.98 1.13 1.02 .82	1.07	.02	.38	.07	.07	.10 .60 .72 .73		.03 2.93 2.94 3.13	.01			.02	:
AHIAWA MUUNTAIN 990 A Alahahi Lumer 1054 Kalahi Upper 1052 Kalawa 943 Kalua Kai 1065 A	20.00 26.98 30.85 15.50 24.85	4.34	.85	.84 .70 .16 1.35	.30	•	•	.03	. 05	3.49 3.50 1.88 3.80	•	٠	.05	1.06	1.09	* 2.37 2.78	.12	1.15	2.40 .84 2.35 1.50	1.15	.04	.19 .25 .09	•	.12	.68	3.70 4.10 4.50	2,23	٠	* .19	٠	• 2	.00
IALMEA 947 IEST LAWAI 931 A	18.95 17.20	5,25		.03	.03					2.52			.03	.12			.63	1.38	1.96	1.29	.02	.09		.03	.42	1.98	1,40					
1 SLAND OF DAHU																																
ALEA FIELD 625 761 A ERETANIA PUMPING STA AMP 84 807 A HURCH COLLEGE LA1E OCONUT ISLANO 840.1	15.32 11.10 15.54 10.00 12.57	2.10	.03	.02 .01 .04 .35	.36 .39 .08 .12	T *	•	.03	•	.71 .63 .37	T		.01	.19 .02 •	•	•	.70	2.64 .55 .75 .48 1.15	.73	3.70 2.60 3.22 1.89 1.77	2.00	.48	.10	.04	.02		3.43 .01 .35		.01	.16	.30	.01
MA PLANTATION 741 ELEMAND INTAKE 881 A IOKULOA 725.2 IONOLULU OBSERV 702.2 IONOLULU WBFC 703 R	10.21 12.39 13.12 10.14 9.63	.26	2.19	.04	.05	1.90	:	:	.84	.97 .50	* 72	:	* T	;61 T	:	.01	.55 .08 .58	. 22	.31	1.97	.86	.03	03 5.37	.04 T	.02	3.90 4.32 3.64 2.20	.05	* *	.24 * .25	.04 • .22 .05	:	:
ONDLULU SUBSTA 704 IS P A EXP STA 707 AHANA 863 A AHUKU 912 A ALLUA FIRE STA 791.3	11.11 11.34 28.91 10.16 13.38		.05 .79 1.55 3.70 1.39	.25 .53 .30 .38	.12 .44 •	* T	* T	:	• 40	.73 3.87 .23	• T	٠	T .	.04	* * T	.10 * .06	.75 .18 12.08 .01	.79 .46 •		3.57 1.65 e 1.40 1.10	.37	1,00	.03 *	7.25 .40 .50	.39	1.69 3.31 * 2.00	01 2.50	* T	.15	.03	4.16	
ALIHI RES SITE 777 ANEDHE MAUKA 781 ANEDHE RANCH 838 AFALAMA 773 AAAAHAPAI 841 A	18.92 14.56 15.45 12.86 10.60		. 02 T	. 22	1.74	.05	т	*04 T *	.44	.01 .61 .32	т	.04 T	.4: .3-	.62 .05 .23 .90	.12	:	.10	.72 .43 1.10 1.30 1.25	1.19	2.36 2.05 1.01 1.72 1.52	.94 2.60 2.00 .36	.98 .84 1.87	.16 .39	.06	1.00 4.60 T	.16	4.93 2.00 2.60	* <sup>04</sup>	.16	.02	.08	.01
AWAI 1KI INTAKE 880.2 A EMOD CAMP 8 855 A DOLAU OAM 833 UALUALEI 804 UALUALEI WTR TUNNEL A	12.39 14.29 V14.69			.58 .48 .06	.80 .61 .01	.04	•	:	:	.88 .21 .02		* .01 .01	.07	.26 1.03	.09	.08	.22 1.52 .20	.81 .76 .80	. 28	1.98 3.20 1.64	.76 .68 1.82	.03	.43	.40	* .05	3.23	4.27 .08 2.95		.23	.02	.18 .30	:
UNALILO HOME 724.2 AKAMA KAI 796 A AKAMA VALLEY 800.1 A AKAPUU POINT 724 ANDA 712	11.45 10.01 11.85 9.57 14.02	* *	1.63 1.84 1.84 1.05	.39 .92 .02		.10			•	.87 .54 .43 1.70	.05		. 02	.72 .12 .26 .28 1.20	.10	* * *	.10	1.70 2.12 .85	.18	2.15	1.98 .63 .77 1.14 1.72	.81	1.06	.68		1.69	.28	1.98 T	.10 .18 .21 .05	.08 .17	.68	
ANDA TUNNEL 2 716 DANALUA 770 UUANU RE5 4 783 UUANU RESERVOIR 5 775 A PAEULA 870 A	19.88 11.04 12.32 17.59 4.15	.92	.76	1.00	.52	.02 2.55	т	• 06	.64	.06 .47 .45	•	e T		1.40 .14 .14 .10 1.10	.18	*	.72 .97 1.30 .41	.58	.58	1.84 2.15 2.28 2.66	.68 1.06	.94	.08	.05	.40 T	3.46 3.40 3.34		.02 3.90	.12	.22 .02 *	.13	
ALDLD VALLEY 718 AUDA FLATS 784 ORTLOCK ROAO 724.4 R1 WAHIAWA 820.2 AUNALUU 884	20.22 20.28 V 6.88 14.83 13.90	.08	.04	1.68 1.78 .11 .02	1.98	.04 .03 T	.09	.08	1.26 .90 .03	.02 .31 .32 .80	• 20	.13		.98 1.64 .01 .02 .22	.08 .38 .02	.06 .18 .06	.17	.92 .94 1.14 1.09 1.00	.06 .43	1.80 2.28 .41 3.13 2.07	1.34		.04	.04 .02 .21 .17	.04	3.24 4.32 .02	.02 .08 3.14 3.00	.07	.14 .20 .09	.04	.02 .19	.02
PUNCHBOBL CRATER 709 A ST 51EPHENS 5EM 788 TANTALUS 2 780.5 NINV 0F MAHAN1 713 A WAHIAWA 0AM 863 A	12.32 20.28 13.69 15.50 13.85	2.10	.74 .68 .04 5.08 1.30	.07	.53 1.84 1.78 1.20	T •18 •03 •01	.01	:	:	.66 .68 .77 .81	Т	.01	.10	.03 .24 1.12 .76 .07	.02	.03 .01 .26	.13	.60 1.13 .62 .45 1.05	.58 .79	2.15 1.52 .08 1.47 3.02	2.24 3.74 1.84	3,39	1.49	.02 .39 .18 .03	.01	2.00 5.01 3.52	.02 .13 .20 2.64 4.29	.02	.14	.09 *	.02 .17 .16 .18	
AIAHOLE 837 A AIALAE KAHALA 715 AIALUA 847 A AIANAE 798 A AIANAE MAUKA 803 A	20.71 11.62 9.40 10.11 22.20	.89 *		.04 .02 1.57	1.92 .56 .41 .06 6.25	.43 .02 .01		• • • • • • • • • • • • • • • • • • • •	1.30	.49	T .	* 1.17	.88	1.59 .35 .09	.72	† †	1.26 .56 .05	1.53 .69 .85	.38	1.94 1.10 1.33 3.20	1.53 .25 1.24	07 1.74	* *	1,45 ,31	1.40	2.62 1.70	4.75 .14 2.54 .05	•01	.03 .23 .16 4,30	.19	*57 *	
Alawa 836 Alamae 885 Alamae 885 Alamae 885 Alupe Resv. 723.2 Alupe Resv. 723.2 Almanalo 794	22.05 25.79 9.53 11.17 14.62	.68	1.41	• • • 02 • T	.39	* T 1.93	:	:	:	5.80 1.27 *	.01	.74	:	.04	:	:		30 25		1.18 3.40		.03	.02	0.60 0.16		2.00	4.50	:	.03	.10	4.38	. 20
VALMEA 892 A VALPAMU 750 A VILHELMINA R15E 721	8.39 9.86 12.54	.90	.70 1.08 .02	.15	.75 .09 .98	.10		:	1.08	.75 .57	.02		.01	.74	:	* • •24	.15 .30 .70	.58 1.25 1.00	.26	1.92	.33 .52 1.24	.20	:	.56	.10		1.98		.10	:	.16	٠

## DAILY PRECIPITATION

Continued		7														-/ 31	f o m 41.														HAWAI1 Decembe	R 19	968
Station	ļ	Total	1	2	3	4	5	6	7	8	9	10	11	12	Day 13	of M	lonth 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29 3	0 3	31
INTANO DE MOLDKAI																																	
KEUNELELE PENS 551	A 1 A 1	2.91 0.66 2.26 5.01 8.36	•	* 2.73	.70	1.15	2.16		•	*	.89 .71 1.06 .50	• 15 • 05	.08	.90 1.85	2.89	.01		1.40		.50	2.31	1.80	.13		1.06	5.00		.40 1.54 2.20 1.97	.60	* * ,15		83	.71 .
MAUNALOA 511 MOLOFAI AP 524 PUUDHOKJ RANCH 542.1 #AIKOLU 540	1	2.35 9.93 2.04 7.62	.07 .02 * 1	T .02	.92	1.50	.12 .11	•01 *		.32	1.18 1.55 .26 8.60	* 78 *		• 41	.32 .87 .02	*01		.15 .31 1.96 7.03	2.80 .80 .30	.96 .50 .03	2.00 *	.85 1.75 .09	10	.10 .45	6.92	2.25	1.00	2,20 1,38 2,00	.05	.12 .47	.42 .	01	:
ISLANO DF LANAI																													i				
LAMAI GITY 672 LAMAIHALE 684	A A A	7.54 5.07 8.67 8.99 9.46	.26 *	.92	.24	.18	.79	.06 3.07	0 T 0	* T *	.54	* *36	*	.84	T .	*01	:	*	.23	1.66 .31 .73 2.15	* 0.2 *	.28	.22	* •40 •	.24 .15	.06			* 2.24	11	31	1	.69 . T . .39 .
MALAUEA 676 MALAKEAKUA 685		8.55 4.02	*	.56	*	1.22	.74	*	*		2.07		*	1.37	*	:	*	1.08	:	1.79	2.85	*	:	:	1.16	:	:	3.55	:	:	* 1		.10 .
ISLAND OF MAUL		ŀ																					1										
AU#AH1-252 MALEAKALA 8 E 5 434	A 1 A 1	5.05 3.32 1.29 9.14 6.40	.08 * .23	.30 e .04 .02	.12 .48 .09	1.10	2.00 1.29 .91		*		1.45 .17 .18 .45	.08 .05 T	.87	.10	3.21 1.76 1.26		.06	.80 * .08 .05	.99	.69 .77 .93 1.50		.02 .44	.20 .41 .12	.34	.20 * .10	2.50		2.81	2.58	• T	.80	06	. :
MALIIMAILE 423 Mamakuapoko 485 Mana 354 Mana airmort 355 Manahuli 281		0.99 8.97 7.97 8.41 0.51	.09 .09 .09	.15 T .10 .08	*01 T		.72	.02 .02 .14 .82	.01		.12 .10 .02 T	.04 T .26	.07	* T	2.26 2.50 .46 .75 1.10	.09	.14	.33	.43 .50 .27 .23	.70 .57 .51 .41	.01 .01 T	.02 .03 *	.46 .44 .39 .23	.38 .13	.84 .25 .68 1.02 .33	.01 .14 .81	T	1.33	.02	.03	.46		. 13
HONOKOHAU 480 HONOKOHUA 493	A 2 A 1	2.70 5.00 5.94 4.20 8.24	* * * *	* * * T	.03	.76	.49	.02	*	:	.34	.02 .04	*	23.50	1.13 .70	* * * T	*	* *28 *	.36	2.90 *60 *61	* *02 *	.50 *	.74 *	.07	* * .94 * T	.02 T		2.18 4	:	:	* 28. * 28.	51	.20
KAHULJI #8 AP 398 KAILIILI 436 KAILUA 446	R A 1	6.49 7.07 5.16 7.68 4.02	* T *	* T *	*21 *	.52 .50	*03 1.79	+.00 + .62	* •02	* *12	* .27 3.14	* 02		. 62 *		* 2.04	* 13	.90 .16 1.92	.77 .15	.04	* 25	.59	07	16 2:12	8.34 .01 3.04 5.72	.46	1.97 .26	* 1,41	* .01	*40 *	.31	87	
KEAMUA 410 KEAMAE 346 KEAWA <apu 260.2<br="" 8each="">KIMEI 311 KIPAMULU 258</apu>	A 3	9.69 1.55 7.96 0.45 8.22	.05 • .14 .10	.01	.01 .03	.39 .38 .48	1.77 * .08 .99 .07	.01	٠	•	.10 .95 .20	.01 .01 .09	*	.06	1.00 *	.03	• 20	.11		.89 1.26	*01 *	.07	.82 1.19	.10	.74 .77	.01 T	.59	2,60 1.64 4.68	.03	.07	.67	.55	. :
KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAMAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372	A 2	8.89 1.08 7.05 0.20	.12 .15 .04 *	•01	.28 .48 *	.58 .31 .67	.64 .04 .07	•02			.54 1.21 .45 *	.20 .12 .12	.02 .10	• 02	.27 .02			.08	.57	1.12 1.28 .99	14.00		.60 1.52 .38	.01	.03	.10	.25	2.49 3.00 1.82				15	. :
	A 1	2.20 2.38 9.51 2.29 0.97	.10 e	:	* 1.69		1.14 # 1.56	•	:	*	* .30 2.59 .33	* .37 .35	*	*	* 2.20 * 1.69	* 32 *	:	* .02 .67		.80 * 1.15 1.70	T	1.00 * .01 1.00	.70	* 47 * 4	* 4.11 .24	.03		2.15 2.89 1.10	* .02 2.00	:	* 2	20 4 51 14 87 7	
OLUMALU GÜLCH 377 PAAKEA 350 PATA 406 PANILEIHULU 259.2 PAUWELA 490	2 A 2	2.00 0.39 8.04 4.45 6.87	+04	e 0 6,45	* T *	.36 .50			* .09 1.75	:	* •02 •12 *	* 77	* •03		* 7.67 1.65 * 2.63	3.14 .11	* .86	* 2.20 * .91	.32 .53	.63 .70	* •03	.06	.44	2.74	1.58	.65	T .	1.25 1.70		.01	10 10 73	00 4 15	. :
PUUHOKAMOA 2 343	A 2 A 5 A 3	2.18 0.78 5.60 0.60 8.64	.09 * * •	*	.15 * *	1.45	.36 * *	.03	* *	•	.14 * * *	.02 * * T	*	* 34.20	.37 * * *	* * * * * * * * * * * * * * * * * * * *	* * *	*	:	1.68	.01 * * T	.48	.77	1.34	* * * * * * * * * * * * * * * * * * * *	• • •	:	2,35	* * *	.92	* 20 * 30		.40 .
	A 1 A 1	7.91 5.50 1.28 1.98	.07 .37	T *	.07 • • •12	.45 * 1.80 .27	.95 * *	02	*	:	.13 * .47	T * * * * * * * * * * * * * * * * * * *	:	*	1.42	• 07 •	:	*	.61 * 1.20	.95 * 1.75 1.16	T *	.28 *	.60	. 23	3.40	T *	1.30	1.84	:	:	55	02 I1 00 75	
MAIKAMOI 449	A 13 A 13 A 3	1.73	.08 .10 .12	:	.18	.28 1.56 1.18		.17	:	:	.48 .27 .14		* * *	.01 * *	.08	:	:	* * 11.03	.98 .44 .57	1.32 1.38 1.02	.10	.87 1.18 1.50	. 61	.20 1.38 .90	.09	.02	.72 .36 .20	1.16 1.93 1.62	.03	.75 ,90	* 30	70	.02
MAILUXU 392 MAIOPAI RANCH 256	1.	.87 3.01 2.05	.12 7 1.96	•	.35	1.25 1.21	1 02	0.6		:	.15 .30 .65	٠	*	٠	1.00	.02	:	* 2.31	. 83	1.40	•01	.56 1.37 2.72	:14	1.90	.02 .33 1.02		. 24	2.34		. 52	.82	٠,	٠ :
ISLAND OF HANALI																																	
	A 21	8.75 8.11 8.04 8.39		۰	*		1,66	.98 * 1.45 1.33	* .13	*	.15		*		7.73 * 4.62 4.79	* * * 4.24 7.21	* * * *08 2.38	6.75 *	.42		.05	•	:	* * .47	.95 * 2.23 1.85	:	:	.33	.03 .02	:		18. 27 15	75
	A 21	9.30 9.07 - 9.54 8.63	* * - 3.00	1.97	1.09	* • - .79 .82	* - .08 .13	.04	* - -06	* - -03	* - .57	* * * * * * * * * * * * * * * * * * *	* * - .02	* * - 02	*	1.29	:	* * - 2.83 .81	*	:	* • - •43	* * * * * * * * * * * * * * * * * * * *	.75	:	.07	.01	· ·	2.88	.03	.01	.05 T	15,	30 .
	A 1	2.80 5.69 5.14	.02	• 05	2.10 1.35	2 · 12 • 32 · 40 3 · 57	.02	.30 *	.02 .11	.04	.02	•	.03	.47 *	6.70	3.40 •02 6.94		.15	1:44	.38 * 3.40 .20	* 2.06	.05	.02	2.12 .06	.07 * .29	.10	:17	T .56 .04 .31	.02 .01	2.80	T		02
	A 3	1.23 3.04 6.20 3.50	3.28	1.26	.04	2.28	5.46 1.85 *	.58 1.46 *	*41	* 07 *	.07 .07 *	:	.19 .02 *	:	5.67	8.34			2.91	.43 1.97	.08	:			1.00	.02	:	.51 .11	.01	.01 6.20 3.50		45 •	
	2	3.84 8.04 8.29 7.37 8.01	Ť	.78 T	.89 2.27 1.78 3.11	.38 .01 .03	.29	*	.02 .10	+18 +93	.35	.22 .14 .14	.68 T .02	.02 T .02	*04 *	1.80	•01 •	1.21	.85 1.33 1.47		.41 .27 .28	.03	.47	.56 † 1.91	.10 .40 .04	T .12	.02	.65	.01	1,21	. 25		
FAMUELA 192.2 FAMUELA AIRPURT 191 KAPAPALA MANCH 36 KAPOHO LANDING 93.5	A 1 A 3	0.77 4.14 7.14 2.83	.06 .02 2.50	T .08	.45 .17 1.10	.70 .41 1.06	.57 .38 1.23	T 6.73	.04 .02 .25		T 68		. 28	:	3.17	.87 .20		T 1.97	0/0	.94 .70 3.00	.50	.07	.20	.05	T .48	T *		.52	3.53	I	.48 .44 T	Ī	

See reference notes following Station Index

## DAILY PRECIPITA TION

ontinued		-			_			_							Day	of N	lonth														DECEH		196
Station		Total	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
MANA 88.1 AINUI LUWER 193 AU 92 LAKEKUA 26.2 ENA 181.2	A	27.51 31.37 32.59 7.95 16.19	4.80	3.01	1.74	.72	2.54	10.28	.29	.04	* .01	:04 :17	.02	* 07	3.04	6.23	1.21	1.10	.07	1.83 * 1.93 2.30	- 42	.04 5.82 .01	.10 .41	.50	.32	.03	٠	.12	1.12	.05	.15 * .13 .25		+ T 16.1
LAKAA A & F 6 A 89.2 ALA 179.1 ALA MAULILI 176 ALA MISSIDN 175.1	A A A	17.70 27.17 9.22 15.38 9.46	3.53	1.10	1.92	1.26	1.18	.20	.80	.13	.02	• 01	.01 T	٠	3.00 1.23 4.59 2.24	5.09 * 1.40	1.43 * *	1.74 1.06 2.99	* .33 .35 .53	1.06		٠	* * * * * * * * * * * * * * * * * * * *	* .30 * *	.69 .43 .73		:	*13 1.90 1.22 1.25	.02	* :13 *	.19	• 28 • 23 T	
AWE LOWER 196 A AIRPORT 68.3 A VILLAGE 93.8 AIAU 222 UIMAELE MIC 199	А	17.26 5.91 6.16 21.97 15.33	.03	.87	1.10	1.28	* .05 3.12 3.62	.64	.03	•	•	.08	٠	1.30	6.73	.32 6.50 3.00	.10	° T 1.55	.60 1.75 .11	.84	.10 .15	3.10 T	.07 .07	* 12 .65	.23	.15	т	.50		* T .06	.28 .65 .21	.72	
UIHAELE HILL 206 AN1 CAMP 79 AN1 MAUKA 76 AN1 3CHOOL 3ITE 78 IHAU 68.2	A A	14.93 15.11 9.46 9.50 8.78	1.44 .01 .42	•06	1.67	1.65		1.00	.08	.32 2.30	.10	T .08 1.00	.08	•20 •	2.75 I.01 1.84	2.01	.44 .38 *		.21 .32 3.86	3.10		.40	.47 2.00	•	.61 .08 *	* •04	.35		.02	.22 1.00	.23	* 21	
UKA 2 NA KEA BEACH 98 NA LDA SLÜPE 08S 39 OLE HOLUALDA 68.1 OLE PEN 147.1	A A	15.69 4.11 7.12 4.78 5.94	* T .07	.02	.76	.12		4.50 *	:	:	.42	.25	:	:	.06	:	* 44	1.38 .38		1.12 1.03 3.51		* *	.03	:	2.54	:	:44	.43 .60	:	.35	.45	1.32	
JLA 18 NTAIN VIEW 91 -EHU 14 JUPDO 28 LU FOREST 38.6	A A A	9.40 28.49 15.27 7.08 28.89		2.40 1.51 #		:17		.37	.39	• •11 •29 •	.02 .24 1,96	* :12 :06	.02 .37	.02 .02		5.78 + .90	1.25 .05		1.66	2.02 1.79 *	.23 .44 *	.09	2.55		.16 .61 3.89	T	:	1.23	.01 T	* * * * * * * * * * * * * * * * * * * *	*35 *	.01 .04 .87	
-11 179 ALA 223 HIHALE 2 24.1 HIO LANO EST 91.5 JHAU 217	А	11.05 21.40 10.25 42.15 16.90	.07 .02	.53	.53 *	1.40	1.60 .55	.92 T	.10	•	.06	T *	. 09	T *	4.46	* 6.40 .13 * 3.90	.28 .27	1.95 .24 .70	.91 .28 2.81	.69		1.34	:01	.97 .02	.31 .51 22	.03	1.23	1.31 .17 T	15 T 3.45	*01 1.20	* .22 T *	.29 .33 *	
JILO 221 ALA 21 AA 65 AO 37 AIKOU 144.1	A	21.91 13.59 45.48 17.90 27.45	5.02	3.15	I.90	2.53			.71	.03 .20 •	.94 .04 # T	.20	.13	.01	2.10	10.42	2.19	.07 1.34 5.67	.64	.67 2.64 3.46 *	.20 .40 .63	.35 * T	.76	.93	.56 .10 *	.11 .15	T 1:18	.23 .71 1.62	.08	,01 •	.21 .03 .03 *	• 72	
AIKOU MAUKA 140-1 EEKEO MAKA1 144 HONUA 89 AKULDA 107 KO 95-1	A A A	29.18 24.45 31.00 4.26 3.51			*29	1.54		.46 1.20 *	.71 .05 *	-11 -01 •	.22	.14	.02			7.63 6.24		1.17 1.56 •	• 42	1.84 1.55 * 2.05 1.66	.20 .16 *	:	.02	.43 .94 *	.74 1.45	.01	:	.14 .13 *	.54	.04 * *	.42	.10 * .73	31.
KIHE I20 LAAU 102.1 LEHUA 73 MALI 113 KUMAU 167	A A A	9.27 4.30 5.60 6.35 17.11	:	* * *	* * * * * * * * * * * * * * * * * * * *	.37	* * * 1.89	***************************************	:	:	.01	*	* * * *	:	* * * * * * * * * * * * * * * * * * * *	•	:	3.42	.71	* * * 1.47	* * *	:	:	:	* * *	:	:	1.02	:	:	:		9456
UD 82 WAAWAA 94.1 PLE RDAO 1 84 H PDINT CORRAL 3 DA 118	A A	8.26 8.19 21.31 4.97 15.20	.73 .20	.04	2.73	:	.08	9.17	.09 * * .02	.06 * .32	:	.08 .52 *	.13	.15 .01	.55 4.10 9.20	1.50 * * 3.55	.46 * * .10	I	.58	1.35		8.04	* .77	.01 * .16	* * * * * * * * * * * * * * * * * * * *	:	:	.16 .36 *	* * * * * * * * * * * * * * * * * * * *	.56	1.40 1.26	* * •17	
LU POINT USCG 159.2 AKEA 500 88.2		6.03	.02	2.84	.04		2.15	. 35	. 25	.02		.14	.04		.89 3.75	.59 5.32	1.21	2.07	.74	.76 1.74			. 27	.65	.51		.01	1,52	.01		.09		

## PRECIPITATION MEASURED IN STORAGE GAGES

Station	Obser - vation date	Amount since last obs.	Snow on ground	Station	Obser vation date	Amount since last obs.	Snow on ground	Station	Obser — vation date	Amount since last obs	Snow on ground
Station  ISLANO OF KAUAI  HANALEI TUNNEL 1053  TOTAL  N WAILUA RIVER 1055	Vation date  1968  JAN 31 FEB 29 MAR 31 JUNE 30 JULY 31 AUG 31 SEPT 30 OCT 31 NOV 30 OEC 31	since		Station  ISLANO OF MAUI  HAELAAU 477  TOTAL  HONOLUA FLO 49 494  TOTAL  KUKUI 380	vation date    1968   FE8   3   MAR   2   MAR   2   MAR   2   MAR   2   MAR   2   MAR   3   MAR	since	t I	Station  ISLAND OF MAUI (CONTINUEO)  MOKUPEA 475  TOTAL  PUU PAKI 352  TOTAL  WAILUA IKI 348  TOTAL	vation	since	

## DAILY TEMPERATURES

										DF	XIL.	Y	TE	MI	EF	RA'	TU	RE	S												A I I ECEM	8ER	1968 o
Station																	oi Mo			10	00		00	00	04	05	00	077	00	00	20	2)	Äverage
	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	<u>~</u>
• • •																																	
ISLAND OF KAUAI			7.1		4.5	4.	4.8	69	70	65	73	70	72	67	59	65	62	66	60	65	66	65	65	67	64		63	62	63	64	63	ŀ	65.4
KANA_OHULUHULU 1075	MIN	58	71 55	56 56 78	65 53 76	64 44 78	65 41	41	57	52	49	49	58	56 75	54 76	57	58	51 75	50 76	52 86	45 86	74	47	48	57	75	46 76	41 79	41 81	49 81	40 82	45 84	49.8
KILAJEA POINT 1133	MAX	70	70	68	69	68	74	73	67	71	71	69	64 75	64	70	69	<b>6</b> 5	67	69 73	69 78	69 78	70 75	71	72 80	66 78	67 75	67	66 75	69 75	70 73	68	74	68.9 76.5
C14UE W8 AP 1020.1	MAX	78 68	76	78 69	75 68	75 63	62	68	63	63	65	68	67	67	70 83	67	65	63	66 75	64	62	65	65	70 80	67	63	61	62	61	59 82	62	65 82	65.0
MAKAHUENA POINT 940.1	MAX		88 72	82 72	69 69	66	68	65	72	66	69	72	70	69	68	72	70	71	71	69	65	70	68	67	68	67	68	61	69	62	61	68	68.2
MANA 1026	MAX	71	69	67	65	62	60	69	66	63	64	65	86 65	64	64	63	61	61	65 76	64 76	60 75	65	64 78	63	61	65 78	62	78	77	76	76	ļ	78.2
NIU RIOGE 1035	MAX	79 62	63	63	60	79 59	79 59	78 57	78 58	58	78 59	79 59	62	63	81	64	63	59	60	60	59	60	60 78	59 78	59 78	59 78	58 77	59 76	58	58	57	78	59.9
WAIAHI LOWER 1054	MAX	63	62	79 64	78 60	77 <b>5</b> 8	78 54	60	80 61	80 58	85 59	60	60	73 57	77 60	78 60	77 62	72 59	70 62	60	<b>5</b> 7	58	50	62	60	60	53	54	50	76 52	73 53	53	58.1
15LANO OF OAHU																																	
EWA PLANTATION 741	MAX	77 68	78 68	81 70	78 68	81 62	82 61	85 64	85 64	87 63	86 65	86 64	8 2 6 7	78 68	80 68	77 67	79 66	74 67	65	82 66	83 67	63	82 63	83 62	83 71	77 68	77 58	80 59	77 66	76 60	78 58	60	80.6 64.7
HONDLULU WBFC 703	MAX	79 70	82 70	80 69	78 68	8 O 6 4	83 62	84 66	81 66	81 65	81 67	83 67	82 69	80 68	81 69	77 68	76 <b>6</b> 7	74 68	80 65	79 66	81 67	79 64	82 65	81 64	81 70	78 64	78 59	79 62	77 64	77 60	79 59	78 66	79.7 65.7
HONDLULU SUBSTA 704	MAX	79 72	80 70	80 70	75 68		79	80 71	81 68	83 69	61 71	83 71	78 69	76 67	79 71	78	76 69	75 69	79 67	80 66	81 70	78 69	81 69	80 70	80 67	75 68	75 64	79 70	77 68	74 65	76 67	77 68	78.5 68.8
KAHUKU 912	MAX MIN		80 67	80 69	79 72	75 67	78 63			83 64	81 65	83 65	84 66	79 70			79 65	79 67	73 65	82 65	81 66			81 65	81 63		83 66	83 64			79 64	78 65	
KANEOHE MAUKA 781	MAX MIN	78 70	80 71	78 70	73 68	79 68	76 64	80 70	85 66	82 67	83 70	8 2 70	80 69	74 70	76 71	76 71	75 65	73 65	85 68	79 67	80 65	7 <b>7</b> 68	78 69	82 70	80 70	75 66	76 65	78 60	76 67	74 67	77 63	79 68	78.3 67.7
LUALUALEI 804	MAX MIN		8 B 6 O	79 69	81 71	78 67	80 61			84 66	84 67	84 65	84 66	80 70			80 67	79 68	76 65	80 66	81 68			81 64	82 68		82 60	79 60			80 62	78 63	
MAKAPUU POINT 724	MAX MIN	68	76 68	77 72	74 69	75 67	76 70	73 70	78 71	79 72	84 73	82 71	79 72	75 67	75 71	81 64	75 69	74 67	72 69	77 64	79 69	78 65	74 66	78 64	78 73	77 64	70 66	78 61	74 66	77 62	74 66	78 63	76.6 67.7
OPAEULA 870	MAX	85 64	73 65	75 66	75 64	72 59	75 59		86 60	77 61	83 62	83 65	83 64	73 62																			
PRI WAHIAWA 820.2	MAX MIN		85 63	75 68	78 65	75 62	78 58	82 58	84	82 58	87 60	84 61	84 61	79 66	74 66	79 65	74 64	75 65	71 63	77 63	79 64	80 63	75 62	82 59	8 O 6 O	78 65	71 57	76 57	75 61	70 57	70 55	79 55	77.9 61.4
NAIALUA 847	MAX	78 68	79 69	77 67	81	81	81 57	84 61	82 64	85 60	83 65	83 62	85 64	81 67	78 68	76 68	82 62	80 67	81 66	78 65	81 65	80 64	84 62	83 61	87 65	75 64	83 63	78 58	79 58	76 60	79 58	8 2 6 2	80.7 63.6
WAIKIKI 717.2	MAX	78 69	8 2 6 8	80 68	81	79 63	82 64	84 66	85 67	85 65	81 67	82 68	82 69	83 68	78 70	81 68	80 69	78 68	74 65	83 67	82 68	84	84 66	83 69	85 73	85 62	79 59	79 62	81 69	80 58	78 68	79 65	81.2
15LANO OF MOLOKA1																																İ	
MOLOKAI AP 524	MAX MIN	76 71	79 68	80	79	70	79 64	80	83	83	82 68	81 65	83	79 65	73 67	78 66	79 66	75 67	71 67	77 68	74 68	8¢ 66	80 68	77 63	80 68	8 O 7 O	70 <b>6</b> 0	76 63	78 65	74 64	74 63	76 59	77.6 66.1
	2-1424					0 4	<b>V</b> -			•	•	•	00		0.	00	00	07		Ů.	00		•	03	Ů.	10	•	• 5		04	03		00.1
ISLANO OF LANAI																																	
LANAI CITY 672	MAX	72	74	74	69	70	75	73	75	79	80	82	78	76	68	74	75	67	68	71	73			71	71	68	70	74	69	71	72	71	72.8
	MIN	03	02	00	01	>0	03	04	01	05	63	67	64	62	60	60	65	61	60	62	63	63	63	62	61	58	60	63	60	57	61	60	61.8
ISLANO OF MAUI																																	
MALEAKALA RS 338	MAX	58		61		55		61				65			53	58		58	54	59	60	62	63	59	59	67	54	58	59	57	61	70	60.3
HALEAKALA SUMMIT 338.4		57	58	53	49	38 56	58	57	46 55	55	55	53	43 62	4.5 5.5	43	43 58	56	45 50	46	47	48	42	40 61	61	40	45	32	35 55	3 <b>9</b> 50	38 53	39 57	41 64	42.7 54.0
HANA AIRPORT 355	MIN	82	37 83	83	39	<b>38</b>	38 75	38	39 87	39 84	42 84	84	42 83	38	37 76	37 78	38 81	35 79	32 76	33 81	29 81	36 81	36 80	39 79	38 81	82	74	76	35 77	37 75	32 77	77	37.9 79.7
KAANAPALI AIRPORT	MIN	73	74 82	82	65	65 73	6 ° 77	70 83	70	69 84	69 84	70 83	67 86	70	68 75	70	68	69	76	65 81	65	65	68	76 82	69		62 75	81	68 79	60 77	60 77	62 77	67.2 80.4
KAHULUI WB AP 398	MIN	69	69 85	70	62 73	67 77	68	65 87	66	71 85	68	67 85	71		68	65	67	68	66	72	67	67	69	66	68	70	66	61	64	64	62	61	66.8
KAILUA 446	MIN	68	67	67	67	67	66	59	60	70	66	64	63	66	66	62	65	66	65	66	69	63	66	63	65	76 67	64	56	62	61	59	57	80.7
KEAWAKAPU BEACH 260.2	MIN	65	6.5	65	65	63 78	63	63	60	87	60	65	64	63	69	63	75 63	63	75 62	75 62	63	62	8 2 6 2	81 64	63	78 63	70 61	77 59	75 59	78 60	72 57		77.4
KULA SANAIORIUM 267	MIN	66	68	67	66	65	61	62	62	65	66	66	86 64	64	61	62	67	79 68	73 65	67 67	85 72	63	85 63	65	67	8 4 6 8	74 65	79 58	8 2 6 0	80 62	77 59	79 57	82.2 64.2
LAMAINA 361	MIN	61	60	59		53	54	71 55	57	74 56		57	73 56		53	70 53	69 54	68 61	60	74 61	70 57	70 56	69 55	72 <b>5</b> 6	69 55	70 56	51	68 52	69 53	69 57	63 46	67 47	69.9 55.5
301	MIN		68	69		64	65	65	84 65	73		84 68 Refere	87 68 ence N	85 68 otes Fo	84 70 llowing	82 68 Statio	70	84 69	74 65	80 67	83 68	8 2 6 7	84 66	84 66	82 70	82 66	84 66	62	80 64	78 63	74 59	78 59	82.1 66.5
														- 15		, , , , , , , ,																	

Continued										D <i>P</i>	\IL	Υ '	TE	MF	EF	lA'	TU:	RE	S												A I I DECEM	BER	1968
Station																Day	oi Mo	nth															Average
Sidion		1	2	3	4	S	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
WAILUKU 392	MAX MIN	82 69	83 67	83 66	84 67	71 65	73 65	8 3 6 8	85 61	86 69	86 67	85 68	85 67	78 65	78 67	82 67	80 67	8 2 6 8	76 63	78 67	81 67	82 65	82 67	80 67	80 63	81 63	73 61	8 o 6 3	80 63	78 61	78 63	8 2 6 1	80.5 65.4
* * *																																	
ISLAND OF HAWAII										Ì																							
HAINA 214	MAX MIN	81 66	81 66	87 67	83 62	79 64	75 64	75 65	79 64	83 62	82 64	82 63	82 60	83 63	69 63	80 62	79 63	8 2 6 3	75 62	79 65	8 2 6 7	8 2 6 4	80 63	76 66	78 62	8 2 6 3	7 <b>7</b> 62	75 61	8 0 6 1	78 61	78 59	80 61	79.5 63.2
HAWAII VOLCNS NP HQ 54	MAX MIN	64 56	64 59	68 58	68 55	67 55	67 56	64 54	68 59	72 56	70 51	72 51	71 51	69 51	61 51	59 55	61 56	62 55	61 54	65 54	64 55	62 55	71 52	69 53	69 48	67 55	63 48	66 48	68 50	67 53	64 46	66 48	66.1 53.2
HILO W8 AIRPORT 87	MAX MIN	78 69	84 70	82 69	80 67	80 69	78 69	81 69	84 68	87 67	84 65	84 66	8 2 60	71 67	72 67	75 67	87 67	76 66	80 69	83 67	83 64	81 68	81 68	83	86 65	87	78 63	8 0 6 5	85 64	77 66	79 62	83 65	80.9 66.5
KAINAL1U 73.2	MAX MIN	79 65	80 66	81 65	77 65	78 62	80 63	80 62	80 62	80 64	81 65	79 63	78 62	78 62	80 63	79 62	80 66	73 63	70 62	79 66	80 65	78 60	78 62	78 61	7 년 5 8	78 63	73 50	78 60	78 62	80 60	76 59	75 59	78.1 62.2
KAMUELA 192.2	MAX MIN	79 <b>59</b>	76 58	78 60	75 58	72 57	72 58	70 58	78 48	80 52	80 50	78 54	79 49	72 52	68 56	64 50	75 55	75 58	69 55	70 58	75 55	76 57	78 57	78 55	76 56	76 56	69 52	69 52	75 47	75 50	66 51	69 46	73.9 54.2
KAMUELA AIRPORT 191	MAX MIN	76 52	76 57	76 57	74 52	72 52	72 52	71 51	75 49	79 48	79 46	76 49	76 47	74 51	70 48	6 8 4 8	76 54	76 46	68 52	71 49	75 51	76 49	77 52	76 52	75 45	74 52	72 51	66 48	76 47	74 54	70 41	69 43	73.7 49.8
KEAAU 92	MAX MIN	87 65	87 65	81 67	82 66	81 68	82 67	85 65	85 65	8 5 6 5	87	85 65	84 01	85 61	74 65	74	74 65	8 5 6 6	75 65	82 67	82 64	88 66	88 66	88 66	88 63	8 4 6 2	84 62	79 61	83 61	83 61	83 61	83	83.0
KEALAKEKUA 26.2	MAX MIN	78 66	81 67	82 66	76 65	79 64	81 64	79 64	81 64	80 67	61 65	80 66	81 64	80 63	80 64	63	79 66	75 64	72 63	80 66	80 64	77 62	79 63	79 63	81 61	78 65	75 59	78 62	79 63	80 61	77 60	77 60	78.9 63.7
KOHALA MISSION 175.1	MAX MIN	8 2 6 9	79 69	83 68	79 65	79 67	75 66	78 67	79 65	82 65	85 65	79 67	8 2 6 4	79 66	68 65	74 65	78 66	81 65	72 65	77 65	84 65	81 65	78 65	79 66	79 65	81 65	79 66	76 64	78 62	81 63	72 61	75 62	78.5 65.3
KONA AIRPORT 68.3	MAX MIN	85 69	8 2 6 8	8 4 6 9	81 69	81 69	84 68	82 67	85 67	86 67	83 70	81 70	83 68	75 65	83 69	⊌5 67	84 67	8 2 70	82 66	82 67	82 67	82 70	85 68	85 66	83 69	84 69	78 69	83 68	81 68	82 63	82 65	8 2 6 5	82.5 67.7
KULANI CAMP 79	MAX MIN	66 45	65 46	67 48	66 46	68 46	65 48	67 45	72 48	68 47	68 47	57 45	58 45	58 45	57 46	62 48	55 49	59 47	58 48	57 48		68 45	64 45	65 48	69 47	67 43	65 41		65 42	65 45		64 33	63.8 45.6
MAUNA KEA 8EACH 98	MAX	84 73	84 73	8 6 72	84 69	86 69	88 69	8 4 6 9	86 69	85 73	86 69	85 70	85 68	8 <b>7</b> 74	88 73	90 70	84 70	75 68	78 68	82 68	85 69	86 68	86 68	84 69	84 68	85 70	77 65	85 67	84 67	81 66	88 62	8 1 6 4	84.3 68.9
MAUNA LOA SLOPE 085 39	MAX	48 39	48 38	48 38	48 37	52 33	50 32	49 34	52 34	52 37	56 36	57 37	54 32	45 34	48 35	45 33	45 37	43 35	45 39	42 34	53 36	51 33	50 31	56 55	58 36	46 32	48 28	49 30	50 31	50 34	52 30	56 34	49.9 34.3
MOUNTAIN VIEW 91	MAX MIN	70 63	70 62	75 65	76 61	76 61	76 64	71 62	73 65	78 63	81 58	82 58	78 55	78 54	68 62	68	6 A 6 3	77 61	74 61	77 64	79 61	80 60	79 62	76 <b>6</b> 1	78 59	78 62	78 56	70 56	75 57	78 59	73 53	77 56	75.4 60.2
NAALEHU 14	MAX MIN	83 67	83 67	8 1 6 7	82 67	80 67	81 69	81 69	61 67	81 67	82 69	82 68	79 66	81 67	81 67	79 66	79 66	79 63	79 64	78 66	78 65	78 65	81 65	81 65	8 O 6 7	80 67	80 62	79 63	79 63	80 64	80 64	80 64	80.3 65.9
OOKALA 223	MAX MIN	81 68	88 70	8 <b>5</b> 7 0	83 66	77 66	74 62	77 67	80 65	83 69	6 a	81 66	8 2 6 5	82 63	69 65	76 64	77 67	8 0 66	74 64	78 67	79 67	8 1 6 1	75 61	72 61	73 59	82 60	72 59	69	71 59	78 60	81 61	77 62	78.1 64.1
OPIH1HALE 2 24.1	MAX MIN	77 63	81 63	79 64	77 60	76 60	7 <b>7</b> 59	79 59	78 61	77 63	77 61	75 61	75 60	77 60	78 61	76 61	79 62	67 62	75 62	63	80 61	76 59	78 59	76 57	79 57	75 56	76 56	77 57	77 57	75 56	72 57	70 56	76.5 59.8

#### **EVAPORATION AND WIND**

Station																Day	Oi M	onth															le le s
Station		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	81	19	20	21	22	23	24	25	26	27	28	29	30	31	Total or Avg.
* * * ISLAND OF KAUAI																																	
LIHUE W8 AP 1020-1	EVAP WINO MAX MIN	239	82	83	162	111	82	65 82		- 57 72 63	55 87	.15 51 89 66	.31 20 85 65	80	.30 286 86 65		.07 45 76 66	.00 44 79 64	.08 76 72 64	51 74	.13 47 85 64	.06 66 84 62	52 81	93 85	.13 132 85 69	114 78	68 82	80	63 84	.15 34 78 61	.32 86 78 60	88	5.538 2913 81.1 64.4
* * * ISLANO DF DAHU	b I																															1	
HONOLULU D8SERV 702.2	EVAP WIND MAX MIN		79	17 78		82		15 84	11	.12 19 85 65	11	.11 10 89 69	.11 12 90 68	50 86	.22 67 81 65	.20 40 83 65	.01 7 74 67	.02 10 78 69	.14 26 72 67	20 82	8.5	.10 12 89 66	2 O 8 8	13 89	37	41 86	29 80	81	82	·11 12 79 62	38	.03 4 80 58	3.658 711 82.9 65.8
* * * ISLANU OF HAWAII																																	
HILO W8 AIRPORT 87	EVAP WINO MAX MIN		64 83	69 82	71 80	63 83	.08 25 78 68	.11 46 78 67	.07 56 84 68	.12 50 84 67	.24 59 86 63	.21 62 84 67	.09 52 83 59		46 72 65	.01 29 74	.17 47 85 67	42 78 66	.00 64 81 68	81	.13 25 83 62	40 86	26 80	.17 59 83 67	.21 75 84 63	.07 40 76 61	.18 52 79 62	-	=	=	:	= :	15768 80.5 65.5

## CLIMATOLOGICAL DATA

HAWAII DECEMBER 1968 DELAYED DATA

				Te	mpera	ture											Precip	pitation					
Station	orage xim um	Average Minimum	erage	parture on Normal	Highest	ej.	west	te	gree Days	M	No. of	Mi	n.	lal	Departure From Normal	eatest Day	Date	le le	ax. Depth Ground		or More	or More	Days Oo Wore
SEPTEMBER 1968	E. 888	71.6	80.0	Depar		Date	mor 67	Date	å	90 4	32° c			£ .49		.29		Tot	Ma	Date	2:	05.	0 1.0

## DAILY PRECIPITATION

	ਙ	T													Day	of N	lonth																	
Station	Total	-	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
JANUARY 1968															İ																			
MUALALAT 72 KIGLAKAA A E F 6	A 5.3		*	*	*	*	*	*	*	*	*	:	*	*	:	*	*	*	:	*	:	:	:	*	*	:	*	*	:	*	5.36 13.10	*	*	:
FEBRUARY 1968																																	İ	
MEAMAKAPU BEACH 260.2	7 . 8	31		.09	.04	.02	.11		.43	1.30					.03		.02	. 84	1.89	.20			.16	2.11			.36	.15						
4 0 0																																		
M4RCH 1968																																		
KEAWAKAPU BEACH 260.2	1.3	36			. 22	т										.39	.61	.02	.04	.01	.07					Т								
* * *						ĺ						-																						
APRIL 1968																																		
KEAWAKAPU BEACH 260.2	2 - 8	16						.26		1.39		.76		• 0 6			.03	.05	+01			.02	. 04		.21		.01		.02					
* * *																																		
MAY 1968																																		
KEAWAKAPU BEACH 260.2	1.3	14								.01		1.02	.31																					
* * *																																		
JUNE 1968																																		
KEAWAXAPU BEACH 260.2 HOUNT WATALEALE 1047	23.9					1.30	. 24	.79	.71	1.34	.39	.94	1.30	1.02	2.28	.75	.12	1.30	. 47	. 47	. 63	.16	1.54	-28	. 71	. 51	. 32	55	. 30	1.02	.43	3.94		
																				• • •		• 10		120	• • •	•••		•	***	1.02		2.,,		٠
JULY 1968																																		
MOUNT WATALEALE 1047	22.4	.7	.75	.04	. 20	.24	.08			.04	.04	.67	1.30	1.89	.31	1.10	.04	. 35	5.12	.16	1.14	. 83	. 31	79	3.62	. 42	.39	ns		- 24	.39	1.06	3 86	
																																		·
AUGUST 1968																																		
MOUNT WATALEALE 1047	18.0	3 2	2.44	. 39			.20	.51	.08	.63	1.30	.83	.31	. 98	.51	.24	.91	.16	1.85	. 24	.16	. 47	2.24	. 39	.20	. 39	1.22	.67	.43	.12	-04		.12	
* * *																																		
SEPTEMBER 1968																																		
KAANAPALI AIRPORT	. 4	9	.08						.07													т				.05	т	.29	т					
OCT08ER 1968																																		
MUHIMI UPR CROSS 1083	12.2	8 6	5.69	.08		.08				.08	.40	ĺ	.08		.32		.15	1.80	1.40	.40	.50	.10										.10	.10	

																																ELAT	-	_
	Station																Day	of Mo	nth															Average
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Ave
*	* *																																	
FEBRUARY	1968																																	
KEAWAKAPU	8EACH 260.2	MAX MIN		77 59	83 54	81 60	83	85 55	85 55	76 61	83 53	81 55	81 51	82	83 63	83 62	83 62	80 67	80 65	74 62	84 63	83	82 68	75 65	83 64	85 60	85 63	78 63	83 62	86 64				81.7
*	* *						•																İ											
MARCH	1968																																	
KEAWAKAPU	8EACH 260.2	MAX MIN	83 62	85 65	84 65		82 63	85 64		84 61	84 60	88 62	86 61	87 64	87 62	79 69	79 62		81 66	85 69		78 65	76 57			80 66				83 67	81 66		86 62	
*	* *																																	
APRIL	1968																																	
KEAWAKAPU	8EACH 260.2	MAX MIN	83 57	84 60	84 65	8 2 6 7	8 2 5 9	85 61	86 64	87 64	85	80 62	80 64	85 70	85 64	87 63	85 66	86 68	80 67	83 65		89 69	88 68	85 63	87 65	87		87 66	82 67	88 65				84.9
*	* *		,																															
MAY	1968																																	
KEAWAKAPU	8EACH 260.2	MAX MIN		89 60	89 61	89 58	8 9 6 1	84 57		85 67	86 66		83 70	86 70	85 68	85 69	85 64	85 64	85 63	86 62			86 67	90 67		91 66		89 70	8 8 6 3	89 63	89 67	90 67	89 65	
*	* *																																	
JUNE	1968																																	
KEAWAKAPU	8EACH 260.2	MAX MIN	88	87 63	89 63	90 66	89 65	87 65	88 67	91 68	90 66		90 65	89 67	90 67	88 71	89 63	92 65	90 65	89 69		90 65	90 66			90		89 68	89 67	90 67		87 67		89.3 65.9
*	* *																																	
SEPTEMBE	R 1968																																	
KAANAPALI	AIRPORT	MAX MIN		91 67		87 72	89 70	88 73	89 70	8 8 72	89 71	87 73	89 72	88 71	87 73	91 70	89 77	89 73	88 71	91 73	91 71	88 73	87 72	89 69	89 73	88 73		87 72			89 68			88.3 71.6

## CORRECTIONS

DATE NOVEMBER 1968 TABLE

DAILY PRECIPITATION

DIVISION

ISLAND OF KAUAT

67.7101

MOHIHI UPR CROSSING 1083

CORRECTION

TOTAL PRECIPITATION 14.50

	NO.	NO O	1 35	300	TUDE	NOL	TII	ERVA ME AI ABLE	ND			C NO.		AGE 1	JODE	TUDE	NOLL		TIME	VATI AN		OBCERNED 1499
STATION	INDEX	NOISTRICT DISTRICT	DRAINAGE	LATITUDE	LONGITUD	ELEVATION	TEMP.		T .	OBSERVER	STATION	INDEX	DISTRICT	DRAINAGE	LATITUDE	LONGITUDE	ELEVATION	TEMP.	PRECIP	EVAP.	SPECIAL par sorm	OBSERVER
EA'T LAMAI 934	A . 45 A . 40 A J956 1 0465 A 0470 A 0935	02 KOLOA 01 KAMAIHAU 02 KOLUA 02 KOLOA 02 KOLOA 01 KAMAIHAU 02 LIHUE 01 KAMAIHAU 01 KAMAIHAU 01 KAMAIHAU	1 2 2 2 2 1 1 2 1	22 09 21 56 21 55 22 06 21 54 22 07 21 58 22 05	159 32 159 19 159 32 159 30 159 22 159 35 159 19 159 26 159 28	1610 116 720 440 350 163 253 490 1218		7A 7A 7A 7A 6A 7A 8A	C.C. C	HC BRYOE SUGAR CO. LIMUE PLANTATION CO MC BRYOE SUG CO LIO LIMUE PLANTATION MC BRYOE SUG CO LIO LIMUE PLANTATION MC BRYOE SUG CO LTO LIMUE PLAN CO LTO GROVE FARM CO LTO LIMUE PLAN CO LTO KEKAMA SUGAR CO LTO	KAMEPUU 690 KAUMALAPAU HARBOR 658 LANAI CITY 672 LANAI HALE 684 MAHANA 694 MALAUEA 676 #ALAKEAKUA 685 ISLAND OF MAUI	A 3461 01 5286 01 A 5301 01 A 5704 01 A 6012 01 A 9021 01	LAMAINA	1 1 1 1 1 1 1 1 1	20 46 20 47	156 55 156 53 156 55 156 55 156 52	1640 30 1620 3370 1430 1135 2040	7.A	MH HO HO	10.10		DOLE COMPANY DOLE COMPANY DOLE COMPANY DOLE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY OULE COMPANY
ILI L ULB INTERE L SU INTERE WAINERS DC 138 KALINIMAS RES 1131 KANALUMUL MUL 1775 KANIMA BESENV IN GOZ KAPAA STAR ES IL 6 KALINIMA BON	A 6222 6A 2227 A 2976 3099 A 3106 A 3169 A 3982 -272 A 9661	02 LIMUE 01 MANALE1 03 MAIMEA 03 MAIMEA 01 KAWAIMAI 1 KAWAIMAI 1 KAWAIMAI 03 WAIMEA 03 WAIMEA	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 59 22 02 22 09 22 11 22 08 22 08 22 05 22 06 21 58 22 13	159 41 159 28 159 34 159 26 159 40 159 22 159 20 159 19 159 43 159 25	870 1070 690 400 3600 800 175 9 9	θA	7A #1 7A 8A 7A 7A 7A 8A 6A	u u uu	LINUE PLIN CULTO MC BRYDE SUG CULTO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO LINUE PLIN CO LID LINUE PLIN CO LID KEKAMA SUGAR CULTO KILAUEA SUG PLIN CO KILAUEA SUG PLIN CO	FIELD 46 474  HAELAAU 477  HALEAKALA B E 5 434  HALEAKALA RANCH 432  HALEAKALA RANCH 432  HALEAKALA SUMMIT 338.4  HALEHAKU 492.2  HALIHAHALE 423  HAMAKUAPOKO 485	A 0790 04 A 0995 01 A 0999 01 1004 02 1008 02 1016 02 A 1075 01 1086 01	LAHAINA HAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO MAKAWAO	2 2 1 1 1	20 51 20 50 20 46 20 43 20 55 20 52 20 55	156 19 156 15 156 16 156 17 156 21 156 21	2060 1050 2980 2100 1850 7030 9960 690 1070 320	6.8 A.6	3A 5A		s	ULUPALAKUA RANCH MAUI PINEAPPLE CO., MAUI PINEAPPLE COMPANY U OF HAWAII EXP STA MALEAKALA RANCH CO HALEANALA NAT PARK U OF MICH MY HAALA OBSY PHIL SCOTT MAUI PINEAPPLE CJ., MAWAIIAN COM + SUG CO
ELLMIA # (FLD   7 , 135  ELLAU[A PC]NI   113)  ALTANO   13 74;  KULL   1-33  KULLA 936  KULLA 948  KULLA 957  KILLA 957  KILLA 957  LIMUE WARLETY STA  LIMUE 122- LIMUE 122- LIMUE 122- LIMUE WARLETY STA	4568   455   4735   A 4742   A 4750   A 4758   A 4950   5560   A 5575	O1 HANALE1 O) WAIMEA O1 WAIMEA O2 KOLOA O1 KAWAIMAU	1 3 2 2 1 2 2 2	22 14 22 02 22 04 21 55 21 58 22 11 21 54 22 01 21 59	159 24 159 24 159 41 159 46 159 28 159 29 169 23 159 30 159 23 159 22 159 21	180 2150 36 240 690 737- 100 375: 207-	8 A	7 A 8 A 7 A 7 A 6 A 7 A	A. J	U S COAST GUARO KEKAMA SUGAR CO. KEKAMA SUGAR CU LTD GROVE FARM CU LTD GROVE FARM CU LTD GROVE FARM CO LTD KILAUFA SUG PLIN CO MC BRYOT SUG PLIN CO MANAILAN SUGAR PL ASSN LIMLE PLIN CU LTD U S «EATHEP BUREAU	HONOXOHAU 480 HONOXOHUA 493 HONOLUA FLO 49 494 HONOMANU GULCH 341 IAO NEEDLE 387.2 KAANAPALI AIRPOR3	A 1882 04 A 1887 04 A 1914 04 A 1935 01 2208 03 2307 04	HANA MAKAWAO LAHAINA LAHAINA LAHAINA MAKAWAO WAILUKU LAHAINA	1 1 2 4 4 4 1 3	20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 56	156 36 156 39 156 38 156 14 156 33 156 42	120 61 325 6930 870 135 125 6280 1100	114	8A 11A 7A MO 6A MO		S	HARRY HASEGAWA MAWAIIAN AIRLINES KOALI RARKH HALEARALA NATL PARK RG. MAUI PINEAPPLE CO MAUI PINEAPPLE CO HAUI PINEAPPLE CO HALEARALA RANCH CO STATE OLVISION OF PARKS AMFAC PROPERTYS
MAKAMELI 965 MAKA 1026 MAKA 1026 MAKA 1026 MAKA 1026 MAKA 1026 MODAA 1145 MODAA 1145 MODAA 1145 MODAA 1145 MODAA 1145 MODAA 1145 MAKAMERIKAN 1051 MAKAMERIKAN 1051 MAKAMERIKAN 1051	5785 A 3664 6082 6097 A 6433 A 6529 6365 6850 A 6888	02 AOLOA 03 MAIMEA 03 KOLOA	2 3 3 2 3	21 52 21 55 22 02 21 55 22 07	159 27 159 38 159 46 159 28	52 140 11 300 3500 330	8.4 9.4 M	8A 7A 9A 10 7A		U S COAST GUARO OLOKELE SUGAR CO KEKAHA SUGAR CO LTD GROVE FARM CUMPANY U S GEO SURVEY LTHUE PLANTATION CO. SU. S. GEO. SURVEY KEKAHA SUGAR CO LTD LTHUE PLIN CU LTO LTHUE PLIN CU LTO LTHUE PLIN CU LTO	KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEAHUA 410 KEANAE 346 KEAJAKAPU BEACH 260.2	A 2552 04 R 2572 03 A 2630 01 2679 01 A 3433 04 3576 03 3910 03 4 4091 01 4193 02	MAKAWAO LAMAINA HANA MAKAWAO HANA MAKAWAO	3 1 1 4 2 3 1 2		156 38 156 26 156 16 156 13 156 38 156 08 156 23 156 10 156 27	650 2000 48 2520 700 1585 1020 480 980	7A	MD 7A W1 5A MO 8A		J	EDWARD CHANG PIONEER MILL CO LTO U S MEATHER BUREAU E MAUL 1RR CO LTO E MAUL 1RR CO LTO PIONEER MILL CO LTO AAUPO RANCH HAWAIIAN COM + SUG CO E MAUL 1RP CO LTO A. L. CORELL
M WA: JAR RIVER 1 35  PH WAINING HITS PRINCEVIC RANCH III PUHNU MIDGE 1800 PUHI ILLI RESERVOIR 0 1-34 TAGGE CAMP 1055-4 MANAMA 91 AMHAMA MUUNTAIN 99 MAIAMI LOWER 1-54 MAIAMI POPER 1052	8155 7 8165 8205 A 8217 A 8573 6694 A 8949 8958	OI HANALEI OI HANALEI OI WAIMEA OZ LIMUŁ OZ LIMUŁ OZ LIMUŁ OZ KOLVA OZ KOLVA OZ KOLVA	1 1 3 2 2 2 2 2 2 2 2 2	27 12 22 13 22 01 21 58 21 57 22 04 21 58 21 58 21 58 22 01	159 34 159 29 159 42 159 24 159 27 159 27 159 34 159 31	101 295 1660 329 420 740 215 2100		6A 7A 7A 8A 8A 7A MU 6A 8A	1	MC BRYDE SUG CU LTO PRINCEVILLE RANCH KEKAMA SUGAR CO LTO GROVE FARM CO LTO LIHUE PLANTATION CO- MC BRYDE SUG CO LTO MC BRYDE SUG CO LTO LIHUE PLIN SO LTO LIHUE PLIN SO LTO	KULA HEIGHTS 323.2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPONU INTAKE 376 LAUNIUPONU VILLAGE 372: LUPI UPPER 442	4634 01 4887 04 5003 02 5006 02 5177 04 5404 04 4 5408 04	WAILURU HANA LAHAINA MAKAWAO LAHAINA LAHAINA LAHAINA MAKAWAO LAHAINA	2 2 4 4 4 4 1	20 47 20 42 20 53 20 51 20 51 20 53	156 04 156 35 156 19 156 22	90 260 5788 2520 3004 45 1280 220 1240 715	7A 7A			S	MAMATIAN COM + SUG CO KIPAHULU CASTLE COMPANY MAUT PINEAPPLE CO KENNETH WILLEY KULA SAMATORIUM PIONEER MILL CO LTO PIONEER MILL CO LTO E MAUT LER CO LTO PIONEER MILL CO LTO PIONEER MILL CO LTO
#AIAWA 743 #AILUA KAI 1065 #AI 162 947 #E 5 LAHA 931 I LAND OF DAHU AHUIMANU LUDP 839-12	9253 A 9467 9629 A 9955	02 LINUE 03 MAIMEA 02 LINUE 03 MAIMEA 02 KOLVA 01 KOOLAUPOKO	3 2 3 2	21 59 22 02 21 57 21 54	159 28 159 43 159 21 159 41 159 31	780 101 501 201 210		8A 7A 8A 6A		LINUÉ PLTN CU LTO KEKAMA SUGAR CO LTO LINUÉ PLANTATION WALHEA SUG MILL CO HC BRYGE SUG CU LTO  OON MITCHELL WALAMOLE WIR CO LTO	OLOWALU 296 OLOWALU GULCH 377 PAAKEA 350 PAIA 406	A 6645 04 A 7040 01 7059 04 A 7066 04 7194 01 7566 01 A 7674 02 A 7857 01	LAHAINA LAHAINA HANA WAILUKU HANA MAKAWAO	1 4 4 1 1 1	21 02 20 48 20 49 20 51 20 49 20 55	156 38	1290 340 4127 7 800 1260 170 3570 485 167		VAR VAR 7P MO 6A 6A WI 7A		S	MAUI PINEAPPLE CO MAUI PINEAPPLE COMPANY MAUI CO » ATER DEPT PIONEER MILL CO. TO PIONEER MILL CO. LTO E MAUI IRP CO. LTO MAYATIAN COM + SUG CO KAUPO RAKHO CO. MASEROT PINEAPPLE CO. WAILURU SUGAR CO.
BERFTANIA PUNPING STA CAMP 84 807 CHUPCH COLLEGE LAIE #EMUT I AND 84 1 DUBSIET HIGHES 780 8 EMA PLANTATION 741 HALAWA JHAFT 771 2 HELEMANO INTAKE 881	0211 A: 0300 0340 0350 0438 0507 0964 A 1384	OZ HONOLULU O3 EWA O1 KOOLAUPOKO O1 KOOLAUPOK O2 HOMOLULU O3 E#A O2 HOMOLULU O5 WAIALUA	1 2 3 1 1 2 2 3 2 5	21 19 21 26 21 39 21 26 21 21 21 21 21 23 21 33	157 51 158 04 157 56 157 47 157 50 158 02 157 54 158 00	760 20 13 565 50 70 1274	9A	9A 6A 5P 8A 7A WI		BOARO OF WIR SUPPLY OEL MONTE CORPORATION BIOLOGICAL SCIENCE DEPT U OF H MARINE LAD J. L. BAINNING EWA PLANTATION CO BOARO OF WATER SUPPLY WAIALUA SUGAR CO. INC.	POLIPOLI SPRINGS 267.2. PUOHOKAMOA 2 343 PUU KUKUI MAKAI 472 PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2 THIN GATES 261.3 UKULELE 333 UKULELE 333 UKUHEMAME 301	A 8070 03 A 8336 01 A 8444 04 8543 03 8553 03 A 8742 03 A 8744 01 A 8750 04	MAKAWAO HANA LAHAINA WAILUKU HANA WAILUKU MAKAWAO MAKAWAO LAHAINA	2 1 4 3 1 3 3 1 4	20 41 20 50 20 55 20 53 20 46 20 54 20 46 20 48 20 48	156 20 156 13 156 38 156 27 156 03 156 25 156 23 156 15 156 35	6150 2980 2500 60 2160 85 1310 5230 75		VAR MO MO 7A 8A VAR MO 7A		5	STATE OLV OF FORESTRY E MAULI IRP CO LTO PLONEER MILL CO LTO HAWAILAN COM + SUG CO EAST MAULI IRRIGATION C HAWAILAN COM + SUG CO KAONOULU RANCH HALEAKALA RANCH CO PLONEER MILL CO LTO
HONDRULU JBSERV 7.22 = 2 PHONDRULU BSEC 7   3 PHONDRULU BSEC 7   3 PHONDRULU C SECTION FOR TOWN OF THE PROMISE TO THE PARTY OF THE PROMISE TO THE PROMISE TO THE PROMISE THE P	1924 2146 2269 A 2462 A 2573 2683 2960	OZ HOROLULU OI KOGLAUPOKU	2 2 2 1 1 1 2	21 19	157 52 157 50 157 43 157 54 157 57 157 45 157 50	12 50 10 800 25 10 910	6A H		nn n nn	U S (COAS) + GEODETIC U S WEATHER BUPEAU ESSA-ZEATHER BUPEAU H S P A EXP STATION MRS. HILLE ZAPATA WAIAHOLE WIR CO LTO KAHUKU PITN CO KAILUA FIRE STATION BUARO OF WIR SUPPLY HAWAII NATIONAL GUARO	WAIMEE VALLEY 482 WAIKAMOI 449 WAIKAMOI UAM 336 WAIKAPU 390 WAILUA IK; 348 WAILUKU 392	A 8955 04 A 9275 03 A 9315 04 A 9332 01 A 9335 01 A 9376 03	MAKAWAU WAILUKU HANA WAILUKU	4 3 4 1 1 3	20 39 20 54 20 55 20 57 20 52 20 49 20 52 20 48 20 54 20 38	156 40 156 31 156 32 156 12 156 14 156 31	580 320 300 1200 4320 470 2630 200 220	0 0 0 0	8A 6A 6A WM VAR 6A		S	ULUPALANUA RCH CO LTO PIONEER MILL CO L30 WASILUKU SUGAR CO E MAUI IRP CO LTO HAUI CONTY WIR OEPT WASILUKU SUGAR CO EAST MAUI IRRIGATION C ST. ANTHONYS BOYS SCH HALEARALA PANCH CO
CANTOME MAURA 781 *ANCOME PANCH 838 *APARA MAGAI 905.1 *APARA MAGAI 905.1 *APALAPA 773 *A#AJHAPAI 861 *A#AJHAI 1 NTAK 880.* *APACEA MAURA 906.* *APACEA MACAI 906.* *APACEA MACAI 906.* *APACEA MACAI 906.* *APACEA MACAI 906.* *APACEA MACAI 906.* *APACEA MACAI 906.* *APACEA MACAI 906.* *APACEA MAURA 906.* *A	3223 A 3268 A 3734. 2A 1741 3825 A 4318 4766 5647 A 5653	02 KOOLAUPČKU 05 WAHIAWA 05 WAHIAWA 04 WAIANAE	1 2 5 5 5 5 5 5	21 25 21 23 21 36 21 21 21 35	157 49 157 47 157 54 157 52 158 11 157 59 158 00 158 05 157 58	365 10 614 20 1160 1050 725 1160		7A 8A 7A WI 7A 8A 7A WI		STAIE HOSPITAL  RANCHE RANCH CO  GEDBEE H. SWIFT  KAMEHAMEHA SCHOOLS  MAIALUA SUGAR CO. INC.  AAJALUA SUGAR CO. INC.  AAJALUA SUGAR CO. INC.  AAJALUA SUGAR CO. INC.  C HAMAII MATIONAL GUARO  MAIALUA SUGAR CO. INC.  C + F OFFICER MEGG  USN AMMUNITIUN DEP  US NAVY  US NAVY	ISLANO OF HAWAII  AHUA UMI 75 AWIN; 182-1 EASI MONGANE 183-2 HAINA 214 HAKALAU 142 HALEPOHAKU 111 HALEPOHAKU 111 HAWAII VOLCHS NP MI 54	A 0040 05 A 0190 01 A 0450 01 0840 01 0905 02 A 1033 03 A 1065 03 A 1065 03	N KONA N KOMALA S KOMALA HAMAKUA S MILO S KAU HAMAKUA HAMAKUA	5 1 1 1 2 3	19 38 20 10 20 07 20 06 19 54 19 24 19 56	155 47 155 43 155 43 155 28 155 08 155 17	5220 1870 4240 460 105 3648 5770 9220 3971	84	MO MO MO			GREENWELL RANCH KOHALA DITCH CO LTD KOHALA DITCH CO LTD DEPERESO SUGAR CO HAWAII NAT PARK KUKAIAU RANCH CO STADE OIV. OF PARK HAWAII NAT PARK KOHALA SUGAR CO
LUL FU 781.7	5655 5675 A 5766 A 5781 5800 6122 6130 6222	01 KOOLAUPOKO 02 HONOLULU 04 WAIANAE 02 HONOLULU 02 HONOLULU 02 HONOLULU 01 KOOLAUPUKU 02 HONOLULU 03 HONOLULU	2 2 2 1	21 17 21 28 21 29 21 19 21 19 21 20 21 21	157 42	240 40 25 160 538 220 650 410	8.4	7A 7A 8A 8A 8A 11D	-	MILHOR LUM LUMALILO MOME CAPITAL INVEST CO CAPITAL INVEST CO U S COASI GUARO MRS. JUHN H-LERAMONI BUARO OF WIR SUPPLY EAP, SIA. MSS.P.A. JOHN A ROXBURGH FEDERAL AVIATION AOM. BUARO OF WIR SUPPLY BUARO OF WIR SUPPLY BUARO OF WIR SUPPLY	MAKI 168 MILO WB AIRPOR3 87 MOLUALOA 70 MULUALOA BEACH 68 MONAUMAO 27 MONOMINA 137 MONOMRE 181,1 MONOMU MAUKA 138 MONUMULA 71	A 1339 01 R 1492 02 A 1557 04 A 1562 04 1665 04	S HILO N KONA N KONA S KONA N HILO N KOHALA S HILO N KOHALA S HILO N KONA	2 4 2 1 2 4	20 14 19 43 19 38 19 37 19 27 19 56 20 09 19 51 19 40	155 50 155 04 155 55 155 59 155 63 155 09 155 44 155 09 155 53 156 52 155 59	27 3220 14 1089 300 800 1100 6250 8190	7 410	7A M1U M0 7A 7A 7A 7A MU	MID	J	U S WEATHER BUREAU STATE OIV OF FORESTRY VARIOUS RANCH HANDS CHARLES HUA PEPEEKE SUGAR COMPANY KOHALA OITCH CO LTO PEPEEKE O SUGAR CU- STAJE OIV OF FORESTRY STATE OUV OF FORESTRY
PALULO VALLEY 718 PAUJA FLAT 784 PERMI CITY TERCE 754 PURTINCE P AD 724 PRI HAHIAMA 820-2 PURI 884	7810 1793 7810 1793 8126 A,8172	02 HONOLULU	2 2 3 3 2 5	21 34 21 20 21 21 21 25 21 17 21 28	157 46 157 48 157 58 157 43 158 01	1048 410 1060 995 1640 240 6 700 40 360	7.4	7A 8A 8A		WAIALUA SUGAN CU. INC. BUARO OF WIR SUPPLY BOARO OF WIR SUPPLY JAMES MUMENO MRS ALFREO FRANCO, JR. PINCAPPLE RESEARCH INSI KAHUKU PLIN CC NAT HEM COMETERY	KAALA 1K1 12 KAAMALOA 29 KAHLAWA1 3-4 KAINALIU 73-2 KALAPANA NO 1 67-8 KAMAOA NO 2 5 KAMUELA 192-2 KAMUELA 18PORT 191	A 2249 03 A 2327 04 2512 03 2751 04 2894 03	N KAU N KONA S KAU N KONA S HILO S KOHALA S KOHALA	3 4 3 1 5	19 08 19 30 19 08 19 32 19 20 19 02 20 01 20 00		1960 1340 1330 3700 1500 10 1375 2670 2665 2140	7/	VAR WI 6A			HUEHUE RANCH HUTCHINSON SUGAR CO CAPTAIN COOK COFFEE CO RUSSELL P. SMITH KJNA EXPERIMENT STA HAWAII VUCKANDES KAT P HAWAIIAN RANCH CO PARKER RANCH HAWAIIAN AIRLINES HAWAIIAN RANCH CO. INC.
TANTAL : PEAR 78 EANTAL : T8 45 NIV F PARKEL 71 WARLAND LAM 863 WALLAND . 93 WALLAND . 93 WALAND . 798	873° 8°38 A 8815 A 8945 A 8946 V485	01 WAIALUA 01 KUJLAUPOKU 2 HONDEULU 02 HONDEULU 03 WAPIAWA 01 KOJLAUPOKO 02 HUNDEULI 05 WAIALUA 06 WAIALUA 07 WAIALUA	2 2 5 1 2	21 20 21 18 21 30 21 28 21 17	157 51 158 02 157 47 157 49 157 50 157 49 158 3 157 53 157 47 158 07 158 11 158 09	854 745 40	7A	7A 7A 8A 7A 8A 7A	THE WAY THE	JACK N. WHEELER REV R CULLINAN BOARD OF WATER SUPPLY R. E. WHILE DEP) OF GEOSCIENCE WAIALUA SUGAR CO. INC. WAIAHOLE WIR CO LTD SPENCER TINKER WAIALUA SUGAR CO. INC.	KAPOMO LANGING 93.5  AAUANA 88.1  KAWAINUI LOWER 193  KEAAU 92  KEALUME CAMP 22.1  KEALUME CAMP 22.1  KEALUME CAMP 124.2  KENNAK OLU CAMP 124.2  KENNAK OLU CAMP 124.2	3510 02 3510 02 3770 01 3872 02 3925 03 3977 04 4098 02 4 445 01	PUNA SHILO HAMAKUA PUNA KAU SKONA HAMAKUA N KOMALA	2 1 2 3 4 2 1	19 30 19 41 20 05 19 38 19 14 19 30 19 55	154 52 155 09 155 39 155 02 155 29 155 55 155 21 155 45 155 09	290 1123 1080 280 1700 1450 5280 3840 1925 1490	8.8	VAR 6A W1 8A W1 M0			BUARO OF WATER SUPPLY SHIGEO MASUYA HONOKAA SUGAR CO PUNA SUGAR CO HAWAIIAN AGRI. COMPANY HISS AMY GRERWELL STAIE OLV. OF FURESTRY KOHALA OLTCH CO LID STAIE OLV OF FURESTRY
#A1PAHU 75U #1 HELHIMA RJ 721	A 9238 A 9261 A 9340 9397 A 9495 9500 A 9521 A 9593	04 WAIANAE 03 EAA 01 KOOLAUPOKC 02 HONOLULU 02 HONOLULU 03 HONOLULU 01 KOOLAUPOKC 05 WAIALUA	1 2 2 2 1 1 5	21 28 21 30 21 16 21 18 21 17 21 21 21 38	158 09 157 56 157 56 157 53 157 49 157 45 157 44 158 04 158 04		SA	WI MC MI BA WI BA 7A BA		CAPITAL INVEST CO CAPITAL INVEST CO AMIAMOLE WIR CO LTD AMIAMOLE WIR CO LTD HONOLULU ZOU BURDED WIR SUPPLY WALLUPE VALLEY SCHOOL SI DIV AMIR + LAND DLV MAIALUA SUGAR CO. INC.  OAMU SUGAR CO BOARD OF WIF SUPPLY	KOHALA 179.1  KOHALA MAULILI 176 KOHALA MISSION 175.1 KOTAWE LOWER 196.3 KONA AIRDURT 68.3 KUNA VILLAGE 93.6 KUNA INLLAGE 93.6 KUNA JILLAGE 94.6 KUNA JILLAGE 94.6 KUNA JILLAGE MILL 206 KUNA JIHAELE MILL 206 KULANI CAMP 79	A 4675 01 4680 01 4685 01 4764 04 4765 04 4815 01 4928 01 4938 01 5011 03	N KOHALA N KOHALA N KOHALA HAMAKUA N KONA HAMAKUA HAMAKUA HAMAKUA S HILO	1 1 1 4 4 1 1 1 1 2	20 14 20 13 20 14 20 05 19 39 19 52 20 02 20 07 20 08 19 33	155 47 155 48 155 38 156 01 155 55 156 21 155 35 155 34	309 960 537 720 17 15 840 980 300 5170	77 74	W I 8A 6A 6A 6A 6A			MADWA KEA SUGAR CO.  KUHALA SUGAP CU  KUHALA SUGAR CO  K, LYWAN BOND  HONOXAA SUGAR CO  HAWAIIAN AIRLINES  KONA VILLAGE RESORT MTI  HAMANUA MILL CO  HONOXAA SUGAR CO  HONOXAA SUGAR CO  ST DEP OF SOCIAL SER
1" AN F H #A FALA - APA 5A) #AMA - MAJKA 582+6 AN MAKAKA 530, #AMMARAKA 530, #AMMARAKA 1 30, #AMMARAKA 1 31, #AMMARAKA 1 31, #AMMARAKA 1 31, #AMMARAKA 1 31, #AMMARAKA 1 31, #AMMARAKA 1 31, #AMMARA 1 31, #AMMARA 1 32, #AMMARA 1	A 541 3547 4 4394 A 4778	OI MOLUKAI OI MOLUKAI OI MOLUKAI OI MOLUKAI OI MOLUKAI OI MOLUKAI OI MOLUKAI OI MOLUKAI OI MOLUKAI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 12 21 04 21 06 21 06 21 12 21 09 21 04 21 08 21 09	156 59 156 52 157 01 157 01 157 12 157 12 156 48 157 13 157 06 156 44	30 60 12 70 360 878 20 1070 450 700	. BA	8A 6A 7A 8A 9A 8A 6A		KALAUPAPA SETTLEMENT  * J. CAR TEN MULOKAI RAKCH LTU MULOKAI GENIKAL HUSPIIA MULOKAI RAKCH, LTO. OEL MOHTE CORPORATION LIBOY MCHILL * LIBOY ALOHA AIRLINIS PUUDHOKU RANCH	KULANI MAUKA 76  KULANI SCHUOL SITE 78 LALAMILO FLO OFF 191-1 LANIHAU 68-2 LAVA TREE PARK 66-1 MANJKA 2 MAUVA KEA BEACH 98 MANNA LOA SLOPE OBS 39 MIODLE MOLUALOA 68-1 MIODLE PEN 147-1	A 5021 02 5260 01 5330 04 5460 03 A 6134 03 6198 05 A 6268 04	S HILO S KOHALA N KONA PUNA KAU S KOHALA HAMAKUA N KONA	5 2 1 4 2 3 1 5 4	19 35 20 01 19 40 19 29 19 07 20 01 19 32 19 37 20 06	155 27 155 20 155 41 155 58 154 54 155 50	5735 2615 1530 650 1760	8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8/ 8	WI WI BA BA			STORP OF SOCIAL SER  STATE OCHT OF SOCIAL SER KONA EXPENIMUN STATIO STATE OLIVISION OF PARK MAUNA KEA BLACH HOTEL MANNA LOA OBSERVATORY KONA LAPREIMENT STA KANUA RANCH HAWAIIAN RANCH CO
wale is the		1 MOLDKAS		21 08	156-55	3550		Tu	r	MOLOKAL RANCH				2								

CTATION	C NO.	SION	DISTRICT	AGE ‡	TUDE	ONGITUDE	ATION			ATION AND LES		STATION	ON		DISTRICT	AGE :	ATITUDE	TUDE	ATION		TIME TAE	AN	D	ODGEDUED
STATION	INDEX	DIVIS	DISTRICT	DRAIN	LATI	LONG	ELEV	TEMP.	PRECIP	EVAP. SPECIAL	OBSERVER	STATION	DINDEX	DIVIS	DISTRICT	DRAIN	LATI	LONGIT	ELEV	TEMP.	PRECIP.	EVAP.	SPECIAL ALL HOTE	OBSERVER
ISLAND OF MANAII MOUNTAIN VIEW 91 NAALEMU 14 NAPODPOD 28 NAULU FOREST 38.6 NIULII 179 OKALA 223 OPIMIMALE 2 24.1 ORCHID LAND 6ST 91.5 PAAJIHO 221	7131 7166 A 7185 7204	03 04 02 01 02 04 02	KAU S KONA PUNA N KOHALA N HILO S KONA	3 4 2 1 2 4 2 1	19 04 19 28 19 19 20 14 20 01 19 16 19 34 20 05	155 07 155 35 155 55 155 08 155 45 155 17 155 53 155 00 155 26 155 22	1530 673 395 1400 75 430 1270 445 415 800	7A 7A	6A 8A 7A VAR 6A 7A 7A VAR 7A		PUNA SUGAR CO HUTCHINSON SUGAR CO KONA EXPERIMENT STA HAMAIT VULCANOES NAT PK KOHALA SUGAR CO HISS CLEONARO BOARD OF WATER SUPPLY PAAUMAU SUGAR CO HAMAKUA MILL CO	PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167 PUU OO 82 PUU WAAWAA 94*1 SAODLE ROAD 1 84	A 844 A 85 A 85 A 85 A 85 A 85 A 85	50 04 15 01 48 01 50 02 55 05 90 02 75 03	5 HAMAKUA 4 N KONA 1 N KOHALA 5 N LOO 5 N KONA 2 S HILO 3 KAU 3 KAU 1 HAMAKUA	1 2 5 2 3 3	19 34 19 55 20 12 19 44 19 47 19 42 18 57 18 57	155 36 155 49 155 26 155 50 155 23 155 51 155 12 155 41 155 41 155 23	2340 400 305		MO MD 7A 6A 7A WM W1			STATE DIV DF FISH-GAM GREENÆLL RANCH KURAIAU RANCH CO KOHALA DITCH CO LTD W. H. SHIPMAN, LID DILLINGAMM RANCH INC BUARD OF ATR SUPPLY HUTCHINSON SUGAR CO FEDERAL ELECTRIC CORP KURAIAU RANCH CO KURAIAU RANCH CO
PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144+1 PAPAIKOU MAUKA 140-1 PEPEEKEO MAKAI 144 PIJHONUA 89 POHAKULOA 107 PUAKO 95-1 PUJU KIHE 120	7721 8000 A 8051 A 8063 A 8186	02 03 02 02 02 02 02 02 02	PUNA KAU S MILO S MILO S MILO S MILO HAMAKUA	2 2 2 2 5	19 30 19 22 19 47 19 47 19 51 19 44 19 45 19 59	155 29 154 57 155 28 155 06 155 08 155 05 155 10 155 32 155 50 155 24	870 670 5030 200 1270 100 1730 6511 5	BA	6 A 6 A MO 7 A 7 A MO VAR 6 A MO	E	HAWALIAN AGR CO PANA SUGAR COMPANY HAWALIAN RANCH CO. INC. MAUNA KEA SUGAR CO. PEPEEKEW SUGAR CO. PEPEEKEW SUGAR CO. STATE DIVISION OF PAPKS EPWIN M. RAPP KUKALAU RANCH CO.	UPOLU POINT USCG 159.2 WAIAACA SLD 88.2 WAIAACHOULA 178.6 NEW STATIONS AHUIMANU LOOP 839.12 PUPUKEA HEIGHTS 896.4	935	25 02 30 01	N KOHALA S HILO N KOHALA L KOOLAUPGKO	1	19 40 20 08	155 53 155 08 155 47 157 51 158 02	1050		8 BA 7 A			U S COAST GUARD SHANICHI KANESHIRO KAHUA RANCH DON MITCHELL JACK N. WHEELER

1 DRAINAGE CODE: KAUAI:

KAUAL: 1-YORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-MINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL (I-INO INTRA-ISLAND DIVISIONS) LANAI: 1-HOR INTRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-SOUTHERN 3-CENTRAL 4-WESTERN HAWAII: 1-NORTHERN 2-EASTERN 3-CENTRAL 4-WESTERN S-CENTRAL 1-WESTERN 3-CENTRAL 3-WESTERN 3-CENTRAL 3-WESTERN 3-CENTRAL 3-WESTERN 3-CENTRAL 3-WESTERN 3-CENTRAL 3-WESTERN 3-CENTRAL 3-WESTERN 3-CENTRAL 3-WESTERN 3-

#### REFERENCE NOTES

Additional information regarding the climate of Bawaii may be obtained by smiting to the Environmental Science Services Administration Regional Climatologist, D.O. Rom 3850. Romojulu, Bawaii. or to any Weather Bureau Office near you. Additional pracipitation data are contained in "BOURLY PRECIPITATION DATA BAWAII"

DIMENSIONAL UNITS: Unless otherwise indicated, dimensional units used in this builstip are: Temperature in "F., precipitation and evaporation in inches, and wind movement in miles. In "Supplemental Data" table directions entered in figures are tens of degrees. Resultant wind is the vector sum of wind directions and speeded divided by the number of observations.

OBSERVATION TIME Data in the "Monthly Extreme": "Daily Precipitation" table, "Daily Temperature" table, and "Evaporation and Wind" table are for the 24 hours coding at time of observation unless indicated otherwise by reference letters in the Station Index The Station Index shows observation time in local

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the "Evaporation and Wind" table. Max and Mini m "Paporation and Find" table refer to extremes of temperature of water in pan as recorded during 24-hours ending at time of observation

MORMALS for all stations are climatological standard normals based on the period 1931-1960

STATION NAMES Bawaii state key numbers are included following station names in the several tables.

DELAYED DATA AND CORRECTIONS will be carried only in the June and December issues of this bulletin

INTERPOLATED VALUES for monthly precipitation totals say be found in the annual issue of this publication

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING

- No record in the "Supplemental Data" table, "Daily Precipitation" table, "Evaporation and Wind" table, "Snowfall and Snow on Ground" table, and the Station Index.
- No record in the "Climatological Data" table and the "Daily Temperature" table is indicated by no entry
- + And also on an earlier date or datee.
- 44 Bighest observed one minute windepeed. This station is not equipped with an instrument to measure fastest mile data
- · Amount included in following measurement, time distribution unknown
- A The letter "A" shown following station name in "Climatological Data" table, "Daily Precipitation" table, and "Station Index", indicates amount carried in the "Total" column is for the period from last measurement of a preceding month through the last measurement of the current month. See "Daily Precipitation" table of this and previous bullating for dates of measurement. Where gages are read only once monthly, measurements made on the first of a month are credited to the last day of the preceding month.
- B Adjusted to a full month.
- J "Supplemental Data" table.
- One or more days of record missing, if average value is entered, less than 10 days record is missing. See "Daily Temperature" table for detailed daily record.
- R Amounts from recording gage
- T Trace, an amount too small to measure.
- V Includes total for previous month

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE POLLOWING

- AR Observation made after rain.
- C In Special Column of Station index indicates Recording Raim Gage Station. Bourly precipitation values are processed for special purposes, and are published later in the "Bourly Precipitation Data" bulletin. If daily amounts are published in "Climatological Data" bulletin they are from a separate non-recording gags, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Bourly Precipitation Data" bulletin.
- MO Gage read once monthly; usually on the last day
- OC Gage readings at periode varying from a few weeks to several months.
- S Storage Precipitation Station. Precipitation measurements, made at irregular intervals, are published in the December issue, or as delayed data in the June leave of this publication.
- SS Observation time is near sunset
- VAR Observation time is variable.
- W1 Gage read weekly or irregularly only.
- WM Gage read weekly and last day of month.
- # Thermometers are generally exposed in a chelter located a few feet above sod-covered ground; however, this reference indicates that the thermometers are exposed in a shelter located on the roof of a building.

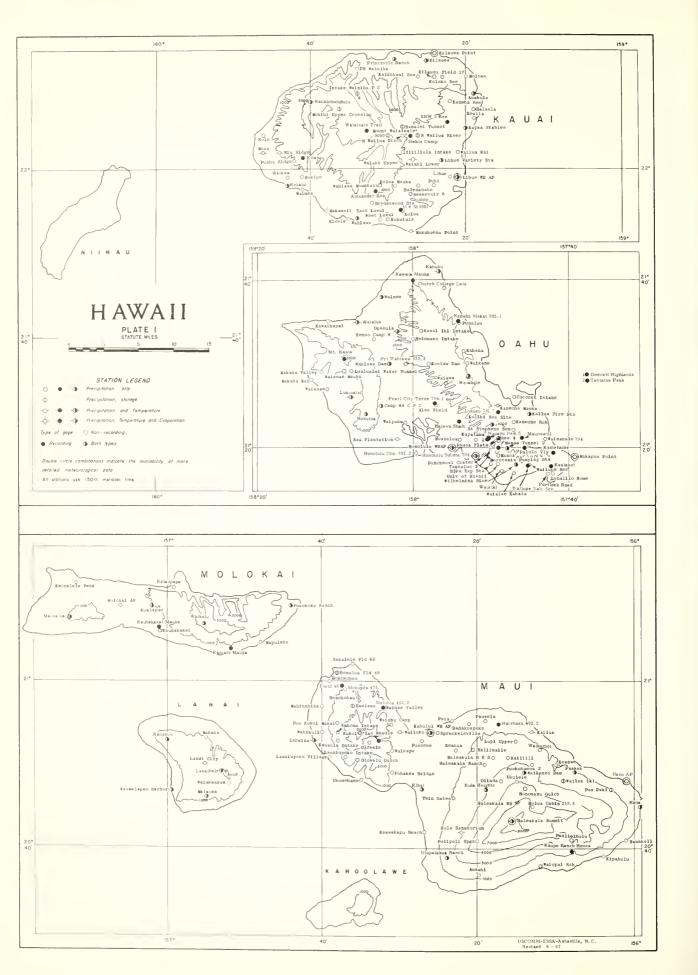
Stations appearing in the tables with no data were either missing or received too late to be included in this issue,

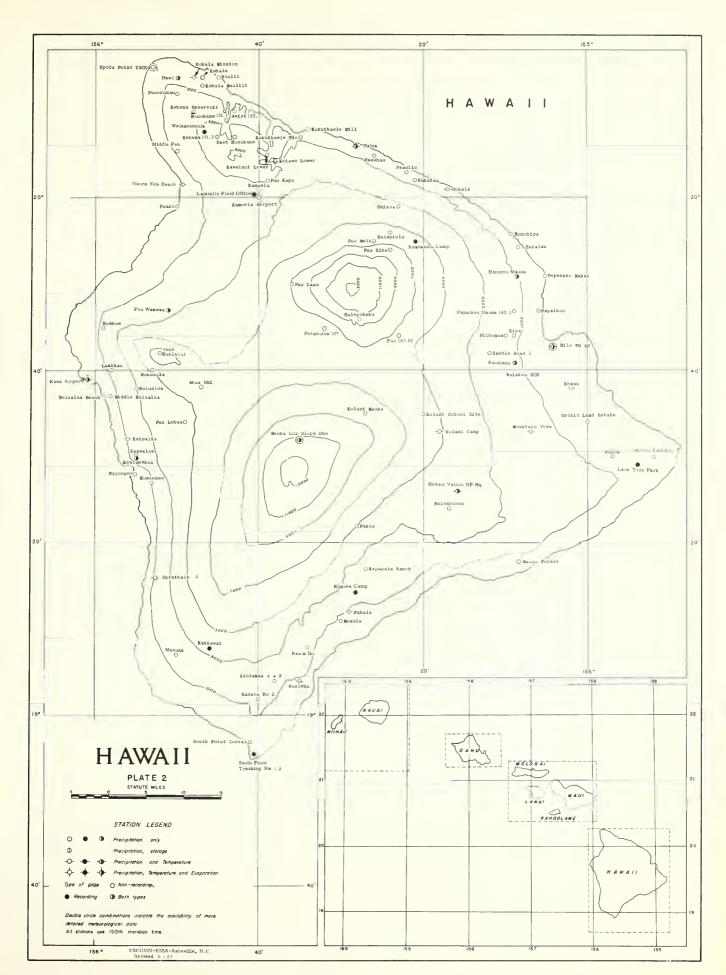
General weather conditions in the U. S. for each mouth are described in the publications MONTHLY MEATHER REVIEW. CLIMATOLOGICAL DATA NATIONAL SUMMARY, and STORM DATA, all of which may be obtained from the Superintendent of Documents, Government Printing Office, Vaschington, D. C. 20402.

Information concerning the history of changes in locations, elevations, exposure, etc., of substations through 1937 may be found in the publication "Substation History" for this State, price 40 cents. Similar information for regular Meather Bureau stations may be found in the latest annual issue of Local Climatological Data, price 15C cents. These publications may be obtained from the Superintendent of Documents at the address shown above.

Subscription Prics 20 cents per copy, monthly and annual, \$2.50 per year. (Yearly subscription includes the Annual Summary.) Checks and money orders should be made payable to the Superintendent of Documents. Remittance and correspondence regarding subscriptions should be sent to the Superintendent of Documents of Documents, D. C. 20402.

USCOMM-ESSA-ASHEVILLE-3/31/69-890







ENVIRONMENTAL SCIENCE SERVICES DMINISTRATION ENVIRONMENTAL DATA SERVICE

ANNUAL SUMMARY 1968

Volume 64 No. 13

AVERAGE TEMPERATURES AND DEPARTURES FROM NORMAL

	Jan	шагу	Febr	ruary	Mai	ch	Ap	nl	Ma	у	Jun	10	Jul	у	Aug	In C	4Septer	Spet D	Como	ber	Nove	nber	Decem	aber	Ann	ual
Station	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure	Temperature	Departure
* * * * ISLANO DF KAUAI																										
KANALOHULUHULU 1075 KILAUEA POINT 1133 LIHUE WB AP 1020.1 MAKAHUENA POINT 940.1 MANA 1026	57.0 72.7M 69.5 73.2 70.8	- 1.4	55.9 72.1 68.9 73.3 71.0	- 1.8	72.9M	3	59.6 73.7 72.4 75.5 74.4	1	61.0 75.3 74.2 76.9 75.6	3	79.6	1.2	80.5	.6	67.3 80.8 79.0 81.2 79.3	.6	65.8 80.6 78.7 81.2M 79.7	.6	64.2 79.3 76.2 80.6 78.5	T	61.7 78.3M 75.7 78.7 76.9	1.2	57.6M 74.3 70.8 74.9M 72.6M	- 1.4	61.5M 76.3M 74.3 77.4M 75.7M	1.
NIU RIOGE 1035 WAIAHI LOWER 1054	68.2		68.9 68.3		69.7		70.6 70.2		71.3 70.9		74.3 73.8		75.1 74.4		75.7 74.9		75.1 75.0		73.7 74.1		72.2 73.4		69.1M 68.1		72.0M 71.6	
ISLAND	67.6		67.2		68.1		70.1		71.4		74.6		75.4		76.3		76.0		74.5		73.2		68.7		71.9	
* * * ISLANO OF DAHU																										
EWA PLANTATION 741 HONDLULU W8FC 703 HONDLULU SU8STA 704 KAHUKU 912 KANEDHE MAUKA 781	70.6 73.0 72.7 M	- :	70.8M	1.0	72.8 74.8 73.2 M	1.0 2.0 1.0	76,7 75,3 74,2M	1.4 2.5 2.1 1.0	75.5 78.4 77.1 76.1M 75.3	2.5	78.0 80.4 78.7 M	1.2 2.5 1.9	81.5 80.6 79.5M	1.4 2.7 2.9 1.8	80.1 82.9 80.9 81.0M 79.1	1.8 3.5 2.5 2.7 2.0	79.6 82.0 80.7 80.8M 78.9	2.4	78.3 80.6 80.1 77.6M 78.7	1 · 7 2 · 4 2 · 7 · 3 2 · 6		2.2 2.9 2.9	72.7 72.7 73.7M M	• .9 • .4	75.8 77.9 77.0M	1 1
LUALUALEI 804 MAKAPUU POINT 724 DPAEULA 870 PRI WAHIAWA 820.2 MAIALUA 847	71.3 M 69.3 70.1	4	72.2 68.0 69.0 70.2		71.7 68.7 70.3M 70.4	1.9	75.1 74.0 71.0 72.2 72.2	3.0	77.0 75.2 72.7 73.9 74.2		80.1 77.0 74.7 76.5M 76.3	3.1	77.6	3.6	81.9 79.4 76.3M 78.2 78.4	3.3	79.6 76.2 78.0M 78.1	3.0	76,9	3.1	74.3M	4.0	72.2M M, 69.7M 72.2	1.0	75.7M 73.8M 74.4	1
WAIKIKI 717.2	72.7		72.9		75.1		1.77		77.9		79.9		80.5		81.5		81.8		79.9M		79.0		73.9		77.7M	
1SLANO	71.3		71.1		71.8		74.0		75.6		77,8		76.9		79.9		79.4		78.3		76.8		72.3		75.6	
SLANO OF MOLOKAI																										
OLOKAI AP 524	71.1M		70.9M		71.4		73.2		74.8		76.5		77.6		78.7		79.8		78.2		76.6		71.9		75.1M	
ISLANO	71.1		70.9		71.4		73.2		74.8		76.5		77.6		78.7		79.8		78.2		76.6		71.9		75.1	
ISLAND OF LANAL																										
ANAI CITY 672	67.6M	2.0		3.3		1.4	68.8M	1.6	70.3	1.8	72.4	2 - 3		2.3	73.7	1.8	73.4	1.9		2.1		3.4	67.3	. 8	70.7M	2
I \$LAND	67.6		68.8		67.4		68.8		70.3		72.4		73.4		73.7		73.4		72.8		72.0		67.3		70.7	
SLAND OF MAUI																										
HALEAKALA RS 338 HALEAKALA SUMMIT 338.4 HANA AIRPORT 355 KAANAPALI AIRPORT KAHULUI W8 AP 398	71.7 72.3 70.8	- 1.3	50.4 41.9 72.1 72.9 70.5	- 1.2	53.0 47.4 73.2 73.4 72.0	2	51.4 45.5 74.5 75.6 74.1	. 7	55.2 50.1 75.7 76.4 75.0	3	58.6 51.6 78.0 M	.7	57.8 49.8 79.2 79.9 79.0	.7	57.3 50.8 79.4 79.9 80.8	1.6	57.1 49.3 78.1 60.0 79.9	1.5	56.5 50.4 77.8 79.1 79.0	1.7	55.9 50.3 77.5 77.5 77.4	2 . 4	51.5 46.0M 73.5 73.6 72.5	2	75.9	
KAILUA 446 KEAWAKAPU BEACH 260.2	68.8	. 4	69.5 71.3M	1.4	70.3	2 . 2	70.6	1.5	71.8	1.4	73.8	1.9	79.2	1.7	75.1 79.6H	1.9	75.6M 80.0	2.3	75.0 79.9M	2.3	73.5 77.9M	2 . 5	70.0M 73.2	1+1	72.4M	1
KULA SANATORIUM 267 LAHAINA 361	62.2		72.7	2.0	62.6	1.4	63.5 75.3		76.1		78.3		79.5	. 9	80.1	. 2	67.0 80.6	. 5	66.6 79.5		65.6 78.1	1.2	74.3	. 4	64.8 76.8	
ISLAND	70.6	- 1.1	73.1	1.8	73.1	1.6	74.9	2.3	76.4	2.0	78.8M	2 - 4	74.6	2.9	75.1	3.0	74.9	2.9	79.8	2.8	77.7	2.9	73.0	. 4	76.6M	2
	0,,,,		0010		0017		,,,,		1114		13.0		14.0		12.1		/4.7		1412		12.47		00,7		7110	
ISLANO OF HAWAII HAINA 214 HAWAII VOLCNS NP HO 54 HILO W8 AIRPORT 87 KAINALIU 73.2 KAMUELA 192.2	69.3 57.7M 72.9 68.2 62.4	2.1	59.6M	-8 1 - 7 4 - 3	70.2 59.6M 74.5 69.9	.7 1.7 3.9	71.2 59.9 73.8 70.2 63.7	1.2	72.9 61.9 75.7 71.7 65.5	1.5	62.2	1.3 .2 2.3	75.5 63.6 76.8 72.4 67.6	1.4	75.6 63.9 76.5 73.8 67.6	1.1	76.3 64.2 76.8 73.8 68.1	1.8 .9 1.3	63.9	1.0	75.1 62.5 76.2 72.7 66.7	3 · 1 1 · 7 3 · 0	71.4 59.7 73.7 70.2 64.1	1.2	73.2 61.6M 75.5 71.5 65.5	1 2
KAMUELA AIRPORT 191 KEAAU 92 KEALAKEKUA 26.2 KOHALA MISSION 175.1 KONA AIRPORT 68.3	60.9 71.5 69.0 70.9 73.2	1.4	69.7	2.9	M.	2.4	61.6M 73.2 70.6 71.9 74.7	2.1	63.9 74.0 71.9M 73.4 75.6	1.5	65.0 75.1 72.1M 75.0 75.1M	1.4	66.0 76.3 72.4	1.9	67.2M 76.2 73.8 76.2 77.5M	1.1	67.1 76.5 73.8 76.9 77.1H	1.6	65.1M 76.7 74.0		63.7 76.7 73.7 75.7 76.4	4.1	61.8 73.6 71.3 71.9 75.1	2.6	63.7M 74.6 74.0M 75.5M	2
KULANI CAMP 79 MAUNA KEA BEACH 98 MAUNA LOA SLOPE 08S MOUNTAIN VIEW 91 NAALEHU 14	53.7M 74.7 41.5 65.7 70.6		55.2M 75.2 42.1 67.6 71.8		54.8 77.0 43.1 67.0 72.7		55,8M 77.1 41.5 67.1 72.2		57.6 78.5 46.6 69.1 74.1		57.4M 79.8M 47.6 69.7 75.1		57.5M 81.1 47.6 71.2 76.2		81.5 47.5 71.2 76.9		58.6M 81.3 45.2 71.3 77.2		58.8M 80.6 46.2 71.5 76.7		57.7M 80.4 46.8 70.8 76.0		54.7M 76.6 42.1 67.8 73.1		78.7M 44.8 69.2 74.4	
OOKALA 223 OPIHIHALE 2 24.1 PAHALA 21 UPOLU POINT USCG 159.2	71.9M 66.1 68.9 73.8	1		5		2.3	72.7 69.2 71.2 74.8	1.5	74.0M 71.1 72.2 76.7	1.2		1.5	76.7	1.9	76.9 72.6 74.5 79.5	1.9	77.5 72.9 74.6 79.7	2.0		2.0	76.5 70.4 73.3 78.7	3.5	71.1 68.2 70.8 75.5	.7	74.3M 70.2 72.3 77.1	1.
ISLANO	67.3		68.3		68.7		69.0		70.5		71.2		71.9		74.1		72,7		72.4		71.7		69.0		70.6	

Division averages in the annual issue include delayed and corrected data and may differ elightly from values published in monthly issues.

A SPECIAL WEATHER SUMMARY DESCRIBING UNUSUAL WEATHER IN 1968 WAS INCLUDED IN ALL MONTHS EXCEPT THE FEBRUARY, MAY, AND JULY ISSUES OF THIS PUBLICATION.

Table 2											-											- Williams
	Janu	агу	February	March	Ap	ril	May		June	July	′	August	Septer	pei	Octob	er	Novem	ber	Decen	aper	Ann	aal
-tats	Precipitation	Departure	Precipitation Departure	Precipitation Departure	Precipitation	Departure	Precapitation	Departure	Precipitation Departure	Precapitation	Departure	Precapitation Departure	Precapitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure
e e e ISLAN UF KAUAI																						
AMAHOLA 1111 BRYDESHOOD STA 985 EAST LAWAI 934 ELELE 927 HALAULA 1110	7.44 10.68 10.29 9.56 4 5.67	3.47 4.76	2.95- 2.51 5.2096 5.4261 3.0490 3.01- 2.34	4.01= 1.76 5.04= .96	9.11 5.93 2.13	2.66 5.54 1.57 .44 4.71	1.36- 1 .74- 2 1.56- 2 .16- 1 1.90- 1	2.58	1.1550 2.13- 1.08 2.38- 1.37 .4456 1.1972	4.00- 6.17 2.20 4.58	1.20 1.20 .94 2.32	1.59= 1.30 2.10= 3.04 3.03= 3.14 .28= 1.82 1.79= 1.11	2.06 2.14 .47 4.00	- 1.46 - 2.00	9.54 9.10 9.95	6.06 6.26 4.24 6.39 5.36	4.59- 3.94- 5.32 8.68	1.94	21.98 22.64 19.17 31.50	27.18 14.78 15.60 14.99 25.98	77.92 78.10 53.22 86.22	32.35 18.31 13.84 22.50 36.36
MALENANAHO 1006 HUKIPO 945 IILIULA INTAKE 1050 INTAKE MAINIHA PC 1086 KALIHIWAI RES 1131	11.06 5.59 4 16.89 4 8.45 4 10.57		5.93 4.88 8.40 6.85 2.63	7.91 .91 16.10 30.02 20.55	6.73 1.93 13.62 19.24 13.00		2.35 .18 3.84 5.19 4.08		2.45 .00 8.94 3.98 2.85	6.68 .52 13.71 10.69 7.02		4.28 .10 9.44 4.80 5.09	5.31 .73 7.89 5.35 5.84		15.88 9.79 18.91 10.53 11.11		4.81 4.68 12.64 50.61 11.58		33.48 18.02 36.38 25.14 13.56	- 1	106.87 47.33 166.76 180.65 107.88	
KANALDHULUHULU 1075 KANEHA RESERVOIR 1092 KAPAA STABLES 1104 KEALIA I112 KEKAHA 944	11.62 4 8.82 7.75 4 6.88 5.65	1.00	16.33 4.17 3.46 2.83- 1.86 3.92 1.00		8.68 17.43 9.13 5.60 1.59	2.24	.54 3.11 1.56 1.87= .20=	.32	1.01 2.52 1.38 1.1053 .0430	.72	.75	1.69 5.32 1.75 .92- 1.61	2.36 6.44 3.88 2.98 .42	,	7.84	6.13	4.70	2.34			42.31	29.22
KILAUE# 1134 KILAUE# FIELO 17 1135 KILAUE# POINT 1133 KOLO 1033 KOLO 936	7.71- 9.82- 6.53 4.84 4 10.39		3.21- 2.91 2.51- 5.67 3.73 5.87 4.88- 1.36	11.12	6.13 11.03 7.43 1.11 4.43-	3.22	2.44- 2 3.24- 4 1.94 .00 1.78- 2	. 35	1.39- 1.88 2.56- 2.49 2.27 .00 1.97- 1.72	2.83	.31	2.47- 2.52 3.69- 4.00 3.08 .81 3.50- 3.02	5.68 5.39 8.64 1.12 3.15	2.07	13.79 11.37 5.75	7.71 6.72 5.32	9.97 12.20 9.14 5.34 5.12-	3.30		3.84 4.93	98.87 77.94 40.28	
KOLOA MAUKA 994 KOLOKO RES 1137 KUKUIULA 935 LIHUE VARIETY STA LIHUE 1020	12.5 9.59 4 8.11 8.82 8.93	2.77	7.22- 2.11 2.82 3.6582 3.93 4.33- 1.39	9.84	10.34 2.73 7.53 2.66-	1.89 .32 - 1.20	2.15- 4 4.40 .80- 1 1.62 .62- 3	3.12	2.60- 3.12 2.52 .7665 2.95 1.4386	7.86 5.36 3.09 4.07 2.90	1.03	5.10- 3.70 3.78 1.00- 2.24 3.59 1.34- 2.19	4.60 5.88 .95 E 4.84 5.78		14.50 13.52 7.66 13.88 12.81	6.56 4.29 7.83	6.60- 16.55 3.37- 13.37 11.03	.64	15.27 18.98 21.41 24.18	13.37	95.85 82.54	12.82
LIMUE WB AP 1020.1 MAKAMUEYA POINT 940.1 MAKAWELI 965 MANA 1020 MOMIHI JPR CROSS 1083	7.43 5.56 7.36 5.01 A 10.65	3.47	3.69- 1.63 4.88 3.1351 3.87 1.06	7.25 2.69 2.44 .82-1.68 1.45-1.20 12.31	1.84	.15	.42- 2 .64 .09- .13-	.77	1.2323 .74 .3403 .0064		.14	.70- 1.76 .67 .11- 1.12 .2277	3.17 .98 2.66 1.34 3.46	1.78	9.93 8.95 7.85 6.20 12.28	5.90 5.60 4.15	8.62 7.92 12.31 7.50 14.50		10.07	10.19	46.41 50.01	27.08
MOLOAA I145 MOUNT WATALEALE 1047 NIU WIOGE 1035 N WAT UA OTTCM 1051 PM WATNIHA 1115	5.60 - 19.10 9.90-	. 1.04	2.31 - 3.39 - 5.00 9.55 8.44 - 3.21	4.15- 2.33 - 1.13 18.22 28.40 13.95	40.25 2.28 17.08	- 2.51	1.87- 1 13.17 .14 6.89 5.90- 3		.8883 23.90 .17 9.34 3.60- 2.38	25.47 2.02 14.12	. 09	1.24- 1.81 18.03 .19 11.94 4.52- 6.13	1.59 21.84 1.14 9.95 4.49		9.47 14.29 8.74	.50	7.40 - 5.14 14.34 19.75	9.78	42.64 17.23 43.77		63.44 49.51 188.59 130.05	
PRINCEVILLE RANCH 1117 PUEHU RIDGE 1040 PUHI 1013 RESERVOIR 6 1 0+ MAMIAMA 930	7.87- 5.61 9.27 4 11.53 4 9.73	4.09 4.70	3.24- 4.14 7.54 5.97 6.13- 1.08 3.18- 1.08	18.79 9.21 1.92 6.90 6.3170 2.20- 1.30		.18	3.31 = 3 .45 1.36 2.08 = 2 .17 = 1		2.31- 2.71 .05 1.73 1.94- 1.82 .6864	7.30 .99 3.87 7.30 3.30	1.96	3.94- 3.38 .49 2.37 3.63- 3.12 .52- 2.00	6.24 2.41 4.08 4.40		9.92 8.60 13.43 13.46 8.30	7.39 5.28	11.76 5.57 4.99 5.26- 4.26	3.91 1.49 1.17		3.32 25.72 11.05	55.36 85.79 101.24	
MAKIAWA MOUNTAIN 990 MAIAHI LUKER 1054 MAIAHI JUPER 1052 MAIAHA 943 MAILUA KAI 1065	9.38- 9.30 11.59 5.32 4 9.35	1.40	8.25- 4.08 4.66 6.18 4.06 [.40 2.88	26.50 13.49 11.27 12.65 1.11-1.22 5.37	15.75 7.31 9.58 1.95 4.82	.83	2.38-8 2.70 3.08 .60- 1.11	.24	9.00- 2.28 5.27 7.26 .3911	14.13 10.86 13.93 .51- 4.63	.02	7.38-8.29 7.39 9.27 .09-1.00	15.00 6.43 7.94 .48 3.39	4.2 <u>1</u> 24	8.75- 14.85 19.96 6.45 10.50	4.50	28.50 16.65 17.61 5.72 12.59	4.11	26.98	5.88	165.02 123.67 149.90 42.18 81.26	21.63
MAIMEA 947 MEST LANAI 931	4.40	.72 2.86	3.86 .46 3.7596		1.07-		.00- .85- 1	.85	.0325 1.2656		.57 1.18	.2282 1.28- 1.99	1.08	20 1.39	8.50	6.59 4.85	4.12	2.38	18.95	15.60		22.56
ISLANO	8.86		5.62	8.51	6.47		1.93		2.18	5.04		2.95	3.92	ĺ	10.51		10.07		22.14		88.20	
ISLAND OF OAHU																						
ALEA FIELO 625 761 BERELANIA PUMPING STA CAMP 84 807 CHURCH CULLEGE LAIE COCONUL ISLAND 840.1	13.96 7.93 10.49 8.57 8.04	9.10	2.51= 2.40 2.97 3.75 2.20 2.26	6.40 1.81 2.15 2.54 7.04 10.08	3.89 4.21 4.74 6.74 5.90	1.0	2.18- 1.06 1.62 2.34 2.93	.33	1.3772 .66 .44 1.69 .36	1.37- .36 1.06 1.81 1.04	1.47	.94- 2.24 .27 .06 1.99 1.03	2.00 1.77 1.27 5.12 4.81	18	5.42 2.11 6.51 3.51 3.59	1.51	4.80 6.85 2.15 6.35 9.74	.62	15.32 11.10 15.54 10.00 12.57	9.90	60.16 41.44 50.17 57.36 62.35	
EMA PLANTATION 741 HELEMAND INTAKE 881 HOKULOA 725-2 HONOLULU OBSERV 702-2 HONOLULU WBFC 703	9.36 12.57 11.07 10.71 8.17	5.55	3.16 .03 4.39- 5.15 5.51 3.96 2.9139	24.57 15.67 2.35 2.22	11.65 5.29 3.31	1.8	1.42 1.67~ 3 1.55 1.49 1.22	.39	.2003 4.76 .44 .62 .17 .2409	.29= 2.22= .63 .33 .29=	2.54	.0064 1.88- 3.76 .26 T	1.27 6.05 2.84 1.17 1.30	.31	5.71 3.40	.69	4.86 12.76 7.24 4.70 5.64	2.59 5.44 3.48	12.39 13.12 10.14	7.36 3.47	102.33 56.19 41.60	
HONOLULJ SUBSTA 704 M S P A EXP STA 707 KAMANA 883 KAHUNU 912 KALUA FIRE STA 791.3	6.36 6.97 4 18.90 4 7.88 6.56	2.74	3.45= 1.62 2.06	3.4776 49.96 27.53 6.45 1.71 6.90	25.60 3.89 4.58	1.04	3.60	.44	.4121 .9253 10.70- 6.25 .9249	10.12-	1.18	.15- 1.06 .64- 1.64 11.41-13.28 .99- 1.67	1.53 1.99 19.16 4.71 .80	.48 .15 1.14 2.86	2.00- 2.72- 12.46- 4.49 5.70	19 30 . 5,33 .33	18.43	3.27 6.00 .60 1.34	11.11 11.34 28.91 10.16 13.36	6.03 6.87 7.98 5.88	45.11	8 - 67
KALIMI RES SITE 777 KANEUME MAUKA 781 KANEUME RANCH 838 XAPALAMA 773 KAWAIHAPAI 841	7.89	1.97 3.80 5.88 3.25	4.72= 2.50 5.47	34.58 25.1 17.62 10.3 15.93 8.31 2.0 7.36 3.4	7.41	9.33 1.88 3.29 2.12	6.35	2.34	3.64- 1.01 1.30- 1.64 .91 2.7432 .5433	1.92-	3.27 2.39 1.06	3.62- 4.40 1.74- 2.55 .97 1.63- 2.30 .17- 1.42	6.29 6.53 2.14	- 1.00	6.69 5.55 .81-	.94	10.28	2.18	14.56 15.45 12.86	6.01	124.26 87.74 E 84.87 E 58.84 46.49	22.65
KAWAI IKI INTAKE 880.2 KEMDO CAMP 8 855 KODLAU OAM 833 LUALUALEI 804 LUALUALEI HTR TUNNEL	14.44 6.51 € 9.95	2.65	4.00 6.46= .46 3.63= 5.41 3.95 5.55		17.50 7.48 11.64 4.76 E 5.50	4.76 4.69	2.20 1.43- 2.36-3 .84 6.50		3.41 .5557 7.3488 .10	4.00 .81 6.75 .24 E .65	3.03	3.30 .28-1.88 6.19-2.38 .19	3.20 2.62 5.54 4.66 E 2.70	1.29 70	7.50 8.06 12.65 3.36 4.00		18.50 7.23 11.74 E 5.11 E 4.50	3.41	E 7.46 12.39 14.29 E 9.58 E 9.68	6.87 4.29	115.38 40.36 56.29	16.95
LUNALILO MOME 724.2 MAKAMA KAI 796 MAKAMA VALLEY 800.1 MAKAPUU POINT 724 MANOA 712	9.11 5.96 7.58 7.39 9.57	2.20 3.80 3.47	3.90 3.025 3.72- 2.00	1.49 6.59 2.6 11.39 5.50	1.60 2.91 7.39	.27 1.13 2.99	1.25 .44- .52 3.33 1.79-	2.23	.17 .0429 .05 .2822 3.01 .02	.39		.10 .0078 .00 .0498 2.54- 1.88	1.70	.66 36 .57	2.35 3.58 4.62 1.07- 5.67		8.44	3.85	11.45 10.01 11.85 9.57 14.02	6.26	42.14	14.67
MANDA IJANEL 2 716 MOAHAL IA 770 NUJANU RES 4 783 NUJANU RESERVOIR 5 775 JPAEULA 870	9.56 11.32 11.14 13.10	6.37	3.719 2.44 - 8.6 3.13 - 5.5 3.87 - 4.5	42.62 29.8 3.8436 27.04 15.0 15.42 7.0 19.16 12.9	4.38 10.08 8.77 10.48	6.32	2.42- 4	.59 5.87 4.09 1.92	7.24- 2.20 1.0710 4.09- 3.06 4.42- 1.42 2.4911	1.04= 3.66- 4.29= 2.19=	6.62 .29 5.01 2.24	4.04= 9.00 .49= 1.27 1.89= 8.70 2.91= 4.62 1.75= 2.16	2.10 5.55 5.95	. 26	5.80- 5.23-	1.51 3.13 1.10		4.36 .51 3.64 5.06	4.15	6.43 1.26 8.66 - 2.82	97.97 91.29 79.11	15.85 -19.98 6.37 21.24
	9.92 13.40 E 8.34	.28	4.32- 8.99 2.73 3.63 4.71	39.54 26.6 43.86 29.0 8.33 6.12 11.13	17.84 4.66 7.65 11.97	4.1	4.36 6.60 1.64 1.26 3.90	7.76	6.36- 2.43 8.62- 4.17 .57 .61 1.84		5.66 5.50	2.44- 9.30 5.72-11.04 .24 .24 2.01	8.94 12.44 .20 1.72 5.66	.51	5.60- 10.92- 2.75 8.78 5.65	1.63	14.19 19.14 E 1.88 1.87 9.18	3.08 6.80	20.22 20.28 E 5.00 14.83 13.90		136.90 173.75 38.38 61.44 80.62	
	10.54 11.0 8.07 10.68		2.96 4.40 3.55 3.17- 1.44 4.42	6.80	4.10 10.02 10.37 5.25 6.18	2.19	1.38	1.6	.89 1.08 5.72 1.4024	1.01 1.68 4.72 .80- 1.40	1.45	.74 .95 4.18 .98- 1.79	.98 6.85 8.26 2.44 1.88	.41	3.20 8.32 6.13 4.97 5.90	1.38	3.73 9.61 14.87 5.79 7.00	2.32	12.32 20.28 13.69 15.50 13.85		40.66 97.04 100.68 54.56 60.44	13.39
HAIAHOLE 837 HAIALAE KAMALA 715	13.51	1.12		26.87 12.00 2.58	20.66	7.36	4.81-	7.34	3.31= 4.69 .56	3.22-	7.72	3.93- 7.90 .27	8.43	- 1.36	3.21		12.85	1.02	20.71	6.42	133.28 37.98	-11.27

Table 2-Continued

HAWAII 1968

Table 2-Continued																									00	minnio-
	Janu	lary	Febr	агу	Mar	ch	Apr	nl	Ma	у	June	е	July		Augu	at	Septem	per	Octob	per	Novem	ber	Decem	ber	Ann	ual
Station	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precapitation	Departure	Precipitation	Departure	Precipitation	Departure	Precipitation	Departure	Precapitation	Departure
MAIALUA 847 WAIANAE 798 WAIANAE MAUKA 803 WAIANA 836 WAIKANE 885	A 6.52 A 6.41 A 13.09 A 21.37 A 12.13	2.62	7.54-	.64 .11 8.54	6.91 1.24 9.39 21.23 29.60	7.39	16.08	1.86 .66 5.31 4.68 7.33	1.08- .49- 2.16- 4.20- 5.89-	7.64	.22- .02- .82- 6.40- 3.90-	.50 .33 2.30 4.44 4.08	1.00 .24- 1.76- 2.09- 4.52-	2.06	.00- .41- 6.46-		1.80 2.24 3.78 9.70- 13.66	1.01 1.47 .51 .27 3.12	3.25 2.67 7.62 12.10 8.39-	1.08	4.90 10.41 16.74 14.98	5.62		6.56	33.87	22.27
WAIKIKI 717.2 WAILUPE RE5V. 723.2 WAIMANALO 794 WAIMEA 892 WAIPAHU 750	6.03 A 6.32 A 8.26 A 7.65 A 9.79	2.27 5.63	2,69-	1.00	1.78 9.35 10.01 15.05 2.20		1.36 3.58 4.22 7.11 3.68	3.86	1.12-	1.69	.43 .89 .85 2.19- .17-	.35	.1d .78 .64 2.36-	.01		1.11	1.61 2.06 1.55 1.92 2.26	.00	2.01 4.08 2.50 6.24 5.18	2.33	4.51 6.62 7.64 6.93 4.78	2.76	9.86	2.87		16.80
WILHELMINA RISE 721 ISLANO	10.12	2,51	3.66=	. 36	6.50	1.98	7.45	2.12	2.22	1.32	1.79	.16	1.91	.90	1.31	1.29	3.99	.70	5.37	. 82	7.42	5.98	12.54	8.26	69.35	18.68
* * * 15LANO OF MOLOKAI									1																	
KALAUPAPA 563 KAUNAKAKAI 336 KEONELELE PENS 351 KUALAPUU 534 MAPULEHU 542	10.67 9.16 A 7.22 A 8.55 10.90	4.41 7.04	8.41	4.21 4.31	21.49 .88 3.45 8.55 5.80	3.99 1.58	6.23	1.86	2.50 .92 1.70 1.23- 1.41-	.35	.00 .47 .18- 2.47	.49	E 1.56 .00 .00 1.81 2.08-	. 93	2.59 .00 .53 .72-		1.43 .26 .85 1.27 2.68	.47	3.48 2.44 4.66 2.84 3.46	.42	5.80	2.01		4 • 15	59.32	23.71
MAUNALDA 511 MOLOKAI AP 524 PUUDHOKU RANCH 542.1 WAIKOLU 540	6.73 E 8.55 11.27 A 16.90	2.46	5.22 E 7.62 9.75 12.90	2.14	3.40- 3.81 11.78 17.29	. 37	4.57 2.39 6.10 20.41	2,26	.80- 1.14 1.27 2.55	.6	.23- T 1.55 1.58	. 52	1.44 1.02 1.88	.86	.81- .30 2.53 2.02	.39	1.66 1.07 3.33 4.42	.50	4.30 3.86 1.93 7.00	1.93	2.67 2.51 2.04 2.62	.08	12.35 9.93 12.04 47.62	8.85	42.62 64.61 137.19	
15LANO  * * *  ISLAND OF LANAI	8.68		7.28		5.39		4.53		1.15		.72		1.43		. 69		1.67		3,62		3.02		11.41		49.79	
KANEPUU 690 KAUMALAPAU HARBOR 658 LANA1 CITY 672 LANAIHALE 684 MAHANA 694	A 6.82 A 4.48 A 7.29 A 4.43 A 6.78		7.61 4.93 8.34 2.90 8.49	4.61	3.99 2.62 5.62 5.49 6.03	1.2	5.46 5.52 13.01 7.96 10.00	10.09	1.53 1.06 2.22= 2.83 1.55	. 45	. 45 . 13 . 93- . 42 . 33	.49	1.19 .62 1.45- 3.03	.27	.28 .54 1.63- 2.02	.19	2.95 4.13 8.85 11.30 1.32	6,58	2.24 1.38 4.48 4.41 3.55	1.5	2.81 3.32 4.38 4.54 3.56	1.52	7.54 5.07 8.67 8.99 9.46	4.95	42.87 33.80 66.87 58.32 51.33	31.88
MALAUEA 676 WALAKEAKUA 685	A 6.37 A 7.51		6.99 7.13	i	2.65		4.18 5.39		1.62		.03		1.35		.73		1.52		4.09 3.65		1.83		8.55		39.42 52.62	
I SLAND	7.29		8.34		5.62		13.01		2.22		. 93		1.45		1.63	1	A . 85	!	4.48		4.38		8.67		66.87	
ISLANO OF MAUI																										
AUWAHI-252 HALEAKALA 8 E 5 434 HALEAKALA RANCH 432 HALEAKALA R5 338 HALEAKALA SUMMIT 338.4	4.52 4.52 4.05 8.26 E11.93	- 2.88 - 1.78	15.15 5.48- 5.62- 14.76 9.47	3.64	3.65 14.50 8.14 6.97 5.26	5.29 2.36	10.68 12.64 9.78 12.36 19.04	4.68 5.16	3.93 2.63 2.02 2.30 4.42	1.77	.10 2.15- .45- 1.18 .55	.63	1.50 2.94- .62- .90 1.45			3.29		3.17	5.86 3.80- 2.51- 5.87 3.17	49	1.55 16.05 10.75 15.86 5.73	9.81 7.31	15.05 13.32 11.29 9.14 6.40	2.86		11.92 13.58
MALIIMAILE 423 HAMAKUAPDKO 485 HANA 354 HANA AIRPORT 355 HANAHULI 281	3.99 7.50 8.45 11.24 11.96	2,73	5.54 4.34- 5.31 2.93 9.53	.36	7.86 12.24 11.35 16.81 12.55	6.70	4.64 5.48 12.65 26.67 27.20	. 59	2.45 2.69- 4.21 4.24 8.25	. 59	.79 2.05- 4.26 3.60 4.92	.72	1.55 2.05- 2.51 3.08 6.56	1.41	.97 1.88- 1.91 3.94 6.20	1.82	1.07 2.38 6.24 12.05 12.28	. 24	1.81 2.62- 4.07 4.00 6.26	. 85	8.18 6.79 12.67 12.76 13.01	2.74	10.99 8.97 7.97 8.41 10.51	2.88	49.84 58.99 81.80 109.75 129.23	
HOLUA CABIN 259.5 HONOKOHAU 480 HONOKOHAU 493 HONOMANU GULCH 341 KAANAPALI AIRPORT	A 11.85 A 7.50 A 6.89 A 7.20 7.73	2.83	8.28 12.00 6.12 9.40 6.42	2.38	5.62 44.00 9.63 12.40 3.91	5.55	13.42 22.20 5.75 19.00 2.69	2.57	4.43 7.60 2.12- I.43 1.11	.14	.74 3.50 .90- 2.42	.78	.93 6.70 1.26- 2.60	1.12	.26 4.30 1.37- 2.60	1.21	5.32 4.70 1.55- 6.20	.13	3.44 2.40 3.32 5.20	.64	.35 12.76 3.18- 19.40 2.49	.14	42.70 28.00 8.94 14.20 6.24	4.29	97.34 155.66 51.03 102.05 33.98	14.74
KAHOMA INTAKE 374 KAHULUI W8 AP 398 KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375		1.11	5.19 6.34- 3.71-	2.58 2.65 7.00 6.76 2.89			19.85	3.36 .56 5.15 7.20 4.82	7.91- 2.56 3.86- 3.61- 2.38-	6.42	5.72- .12- 5.24- 6.27- .42-	1.55	8.95-	.01	4.96- 6.26-	1.45 .09 4.75 5.05 2.07	9.10	1.32 .04 3.64 .33 1.27	5.51- 5.28-	2.04	19.85		7.07		128.20	18.40
KEAHUA 410 KEANAE 346 KEAHAKAPU 8EACH 260.2 KIHEI 311 KIPAHULU 258	4.11 4.16.30 5.66 3.89 12.17	.91	2.70- 7.81 6.46	3.26 16.71 4.31 1.55	4.98 54.00 1.36 2.22 7.05	2.16 31.84 .34 2.51	2.86	.97 7.60	1.73 9.60- 1.34 1.94 7.05-	11.50 1.76	.08- 10.40- .00- .00- 4.46-	.04	.35- 12.80- .05 .00- 5.91-	7.07	.08- 10.80- .00 .01- 5.23-	10.95	1.67 T -	1.33	1.00- 5.70- .38 .83 7.59-	9.65	5.06 19.80 1.93 2.68 11.10		9.69 31.55 7.96 10.45 8.22	8.54	217.25	17.17
KULA HEIGHTS 323.2 KULA SANATURIUM 267 LAHAINA 361 LAUNIUPOKO INTAKE 376 LAUNIUPOKO VILLAGE 372	3.79 6.81 4.20 4 6.00 4 5.80	1.41	8.33 15.93 5.68 12.00 8.33	7,24	4.00	1.76 - 1.27 - 1.01 - 1.06	8.60	1.46	2.10 2.20 1.42 3.00 1.58	.10 1.07 .17 1.24	.02 .02- .00- 1.30- .08-		.47 2.14 .00- 1.11-	.08 .11 1.52	.02-	1.05 .40 2.70	. 52	2.95 .23 .47	2.51 4.93 1.52 2.60 2.44	2.67 .52 .10 1.47	6.36 2.15 2.29 3.50	1.06		14.26	25.87	36.63 12.28 21.95 20.18
LUPI UPPER 442 MAHINAHINA 466 NAKALELE -FLO 60-497 OLINOA 332 OLOWALU 296	A 15.70 A 7.15 A 5.98 A 3.83 5.85	2.04	8.15 6.80 7.89	10.09	15.14 11.33 5.95	18.46 9.58	6.89	2.37	5.00- 1.37- 2.53 2.34 1.50		7.00- .60- 1.56 .73	3.49	9.50- 1.28- 1.98 1.93	1.43	6.30- .75- 1.99 .66	9.13	6.80- 1.11- 2.50 3.61		5.00- 2.52- 4.61 3.94		15.00 6.18 2.66 13.23	2.49	22.20 12.38 9.51 12.29 10.97	5.34 5.58 9.06	62.17 58.36 70.84	
OLOWALU GULCH 377 PAAKEA 350 PA1A 406 PANILEIHULU 259.2 PAUWELA 490	A 11.43	2.05	4.00- 4.77 21.90	1.21	5.80- 62.41 7.66 3.49 15.63	3.61	6.20- 28.65 4.03 23.55 12.22		1.20- 8.71- 2.34 10.30 3.19-	9.89	.40- 11:10- .52- 2:25 2:51-	.67	11.71-	1.07	1.81	3.04 8.57 1.34	1.01-	1.70 1.95 .27		. 48	14.00 26.23 4.25 9.21	9.46	12:00 28:39 8:04 22:45 16:87	2.57 8.47 3.82 9.79	60.92 226.11 41.62 122.02 77.15	9.33
POHAKEA BRIOGE 307.2 POLIPOLI SPRING5 267.2 PUOHOKAMDA 2 343 PUU KUKUI MAKAI 472 PUUNENE 396	A 13.60	- 3.24	14.00	4.70	1.57 4.85 52.40 16.40 5.32	6.07	2.33 15.43 48.00 13.40 1.26-	4.67	2.56 .31 9.00- 1.00- 2.55	6,11	.00 .36 13.60- 2.40-	3.66 3.09 .09	.19 5.54 12.60- 3.00-	11.54 4.09	4.00-	11.43 3.21 .27	.03 4.89 11.60- 2.40-	1.58	1.60-	3.13		1.96	E25.59	14.04	37.14 102.31 243.60 102.40 34.25	11.53
SPRECKEL5VILLE 400.2 THIN GATE5 201.3 UKULELE 333 UKUMEHAME 301 ULUPALAKUA PANCH 250	4.98 A 1.40 A 5.84 A 6.74 5.82	- 1.76 3.94	10.98	2.64 .55 5.93		3.12 1.82 1.48	.00 16.70		2.41 3.20 2.08- 2.00 2.88	1.27 1.77 1.65	. I3- .00 1.73- .00-	.68	.61 .00 2.07 .00 2.09	2.29	.06- .00 3.05- .00-	2,43	.52 .00 3.62 .55 5.86	.07 .19 .35	1.57 1.99 5.12 1.05 4.65	.18 .08 .16	17.06		6.50 11.28	4.76 2.69 9.79	30.57 87.95	23.16
WAHIKULI 364 WAIEMU CAMP 484 WAIHEE VALLEY 482 WAIKAMOI 449 WAIKAMOI OAM 336		4.72 3.74	8.16 7.15	2.34	1.29- 10.50 13.17 46.70 30.15	7.41	4.81	1.89 1.54 .56 6.86	1.45 2.49 2.28- 6.50- 5.83	.86 .73 .45 9.89	.02- .49 .50- 9.50- 9.38	.23 .07 .41 1.59	1.00 1.36- 11.60- 10.06	.02	. 24-	1.47	1.13	.75 .26 .03 .82	1.88 2.18- 2.25- 4.90- 8.04	1.14	4.48	2.90	12.04	5.21 7.09 5.75 13.44	56.15	
WAIKAPU 390 WAILUKU 392	5.95 5.99	1.92	9.15 6.88	5.39	6.27 7.44	2.73	2.71	.17		1.64	1.92	.16 1.58	.47-	.08	.16-		.57 1.02	.15	.93- 1.14-	. 76	5.12 3.76	2.96	11.87	7.93 8.69	45.99 49.87	21.28

Table 2-Continued		7	,				T						1708
	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Station	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precapitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure	Precipitation Departure
MATOPAL RANCH 256	6.83 2.80	10.99 7.5	9 1.03- 1.97	15.17 13.25	3.35 2.77	.30 .08	.42 .09	.1381	1 2.66 1.71	5,84 4,20	.47- 1.89	12.05 8.6	8 59.24 36.56
1SLANO	8.00	7.16	13.56	12.27	3,35	2.43	3.11	2.64	4.76	3.56	8,53	11.67	81.04
ISLAND OF HAWAII													
AHUA UMI 75 AWINI 182.1 EAST HONOXANE 183.2 MAINA 214 HAKALAU 142	4.20 2.13 8.48- 2.14 11.44- 1.69 3.37- 1.69 5.40- 5.25	8.11- 3.3 11.33- 1.6 1.62- 5.3	2 42.12 26.13 22.71 3.78 20.47 11.91	23.70 5.16	11.8754 10.53 - 3.74 7.12 2.20	3.65 1.73 8.42 1.59	4.72= 7.94 8.34= 7.92 2.34= 1.12 8.48= 1.35	4.97- 7.34 6.50- 9.89 3.09- 1.55 7.40- 4.38	4.73- 1.60 7.50- 1.10 1.16- 1.13	2.72- 5.96	2.79- 7.42 5.35- 6.63 2.20- 3.43 5.03- 7.31	28.11 14.2	2 152.78 13.15 2 136.32-35.00 9 78.06 14.00
MALEMAUMAU 52 MALEMIULA 117 MALEMOMAKU 111 MAWAII VOLONS NP MQ 54 MAWI 168	4 14.48 4 3.86 .14 15.23 3.01 4 8.52 3.82	5.39- 4.86	-	12.06 10.37 6.30 7.08 19.85 11.45 14.38 9.34	1.11	3.07 1.85 .82 2.10 8.73 4.20 2.8016	1.75	2.21 .43- 3.34 .09 4.74- 2.85 2.04- 2.15	1.91	-	2.97 4.51 - 5.67	20.54 10.4	
HILD WE AIRPORT 87 HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAJ 27 HONOMINA 137	8 4.77- 7.05 8.00 3.49 4.11 1.81 5.75 6.84- 4.91	6.44 2.13	3.15	29.68 17.76 17.70 10.53 7.72 5.41 7.02 26.18 10.69	2.71- 6.62 5.80- 4.20 1.9570 2.01 5.03- 7.28	8.72 1.93 2.40- 7.31 2.16- 1.17 3.90 8.73 1.01	9.35 .97	9.62-1.83 3.98-3.8 6.16 3.3 7.08 8.61-5.1	8.40 .29 1.12- 1.59 10.15	5,97- 4,83 20,60 14,73 8,16 5,68 2,68 4,43- 8,44	2.20= 1.94 .20= 1.57 2.92	12.80 10.3	4 105.07 26.32 3 48.86 20.02 59.28
HONDKANE 181.1 HONDHU MAUKA 138 HONDAULA 71 HUALALA1 72 HUEHUE 92.1	9.19- 2.36 7.66- 8.40 1.00- 2.77 5.36 3.60 6.20 2.07	16.74= 1.58 8.00 4.57 4.40 2.55	3 21.27 .15 7 4.40 .30 5 2.40 .35	40.11 21.13 18.40 15.41	1.60- 3.03	5.46- 3.54 15.62 5.13 1.40- 2.70 .8259 2.73- 1.77	3.00= 1.07 1.86 .35	1.69 .27	3.40 .06 1.2253	2.69-5.82 7.03-8.68 3.40 1.18 2.20 1.26 4.33 .74	.8084	33.04 11.4 6.20 4.6 3.50 2.8	4 195.56- 3.94 5 54.20 15.02 8 33.35 16.19
KAALA IKI 12 KAAMALOA 29 KAINALIJ 73.2 KALAPANA NO 1 67.8 KAMAOA NO 2 5	11.24 5.38 1.65 5.96 2.00 16.55 9.32			10.85 11.28 6.32 10.96 5.30 14.75 12.60	4.40 2.22- 4.15 5.07- 2.63 3.79 1.22	3.31 2.36- 4.33 4.31- 3.64 10.09 4.75	5.25 7.19 .11 9.24 .69 5.22 2.42	1.09 6.40= .19 7.16= .53 3.62 1.12	6.36 6.8605 6.07- 1.53 11.10 1.73	8.57 3.14- 2.68 3.98- 2.22 9.03 3.61	4.25 1.07= 2.51 2.01= 2.26 17.47 2.06	13.84 8.04 5.2 8.29 5.2 27.37 8.01	81.81 58.81-4.05 8 69.35-1.91 141.45 53.86
KAMUELA 192.2 KAMUELA AIRPORT 191 KAPAPALA RANCH 36 KAPOHO LANDING 93.5 KAUMANA 88.1	4.39 .08 3.39 11.22 2.21 9.12 7.01	6.18	3.61	12,06	2.90 .14 1.38 7.13 3.12 8.37 8.76	1.0870 .60 2.84 .74 10.17 11.68	.92	.25= 2.83 T 1.29= 3.09 6.90 12.71	1.16	1.9534 1.54 6.99 1.39 6.93 9.36	1.57- 1.10 .77 .70- 5.53 10.49 6.77	4.14	35.75
KAWAINUI LOWER 193 KEAAU 92 KEALAKEKUA 26.2 KEMENA 181.2 KEHENA RESERVÜIR 176.1	6.73- 6.46 7.66- 4.90 5.75 11.42 1.10 9.35	2.94	52.31 32.15 12.10- 3.48 1.86 22.67 9.97 22.20	31.97 19.55	4.52- 5.36 2.41	6.08- 4.39 8.67 .81 2.37 5.61- 1.74	9.7539 7.09	7.37- 4.38 5.83	15.73 6.68 8.32	3.19- 8.04 5.62- 6.76 3.19 4.50- 1.65	5.31 = 6.13 8.73 - 5.20 1.27 5.50 - 2.79	7.95	10 197.42 19.02 2 158.31 13.16 59.49 15 123.49 10.34
KIQLAKAA A E F 6 KIPA 89.2 KOHALA 179.1 KOHALA MAULILI 176 KOHALA MISSION 175.1	13.10 5.71 7.63 7.61 2.84 8.60 1.67 7.82 2.36	10.81 4.83 .35 7.17 .21	16.05	48.25 16.23 10.44 19.82 10.33	5.10 .06 8.66 1.70- 2.54 3.37- 3.36 2.49- 2.26	4.10- 1.08 13.47 2.7465 3.51- 1.67 3.1850	12.30 4.0847 3.58- 3.24	12.58 2.30- 2.79 3.10- 3.84	13.64 1.66= 1.31 2.65= 1.24	11.60 6.35 9.29 1.17- 3.36 2.19- 3.89 1.79- 2.77		27.17 9.22 2.7 15.38 6.1	186.17 7 68.40 11.77 1 89.52 6.01
KOIAWE LOWER 196 KONA AIRPORT 68.3 KONA VILLAGE 93.8 KUKAITAU 222 KUKUIHAELE HIC 199	4.39- 4.52 3.87 - 4.38- 3.27 5.9419	3.19	30.57 17.74 1.70 2 22.51 7.90 2 25.39 15.35	5.50 - 16.30 2.88	16.44 6.14 2.54 .39 9.22 .61 7.41 .70	4.40- 2.26 .85 .37 5.28 1.87 1.42- 1.62	E 2.04 .17 3.69- 2.69	2.06 .91 4.17- 3.97		2.69 - 4.30 3.21 .32 2.28 - 5.57 1.60 - 4.34	3.35 - 3.55 .14 .28 1.65 - 7.82 1.95 - 4.81	5.91 6.16 21.97 8.7	
KUKUIHAELE MILL 206 KULANI CAMP 79 KULANI MAUKA 76 KULANI SCHOOL SITE 78 LANIHAU 68.2	4.75 .16 6.73 2.65 0.50 6.23	1.61-4.13 3.43 1.17 3.75 5.05	17.37 9.85 6.93 7.13 3.81 4.24	9,45 3,06 22,46 7,81 15,81 14,55	5.02 .59 6.38 2.18 9.83 2.65	2.17 .12 6.84 3.29 4.46 2.28	1.45- 2.20 8.21 2.84 4.69 13.29	2.88- 1.36 3.97 1.85 6.55 10.21	1.1689 6.85 2.94 5.41 10.21	1.76- 3.02 7.40 3.92 6.50 7.34	2.03 = 2.94 2.69 1.58 3.23	14.93 7.7 15.11 9.46 9.50 8.78	6 64.58 7.00 97.00 46.82 80.04 85.63
MANUKA 2 MAUNA KEA BEACH 98 MAUNA LOA SLOPE 08S MIODLE HOLVALOA 68.1 MIODLE PEN 147.1	6.27 2.11 4.48 1.61 5.92 5.31	2.66-1.90 3.33 1.54 4.31 3.83	1.38- 4.52 .26 3.60 1.95 .93	9.17 3.04 4.43 8.03 8.60	1.69= 5.03 .88 1.59 .84 4.98	1.80 - 3.71 .14 1.42 2.82 .12	5.99 .97 .22 1.36 11.78	2.21- 3.89 .74 2.14 6.09	5.6025 .81 4.46 1.48	2.36- 2.09 .65 2.21 8.16 3.24	2.7189 .04 1.55 .32	15.69 11.9 4.11 7.12 4.78 5.94	7 57.53- 3.62 18.70 33.03 56.48 33.70
MODULA 18 MOUNTAIN VIEW 91 NABLEHU 14 NAPOOPOO 28 NAULU FOREST 38.6		10.35 4.01 11.41- 4.20 3.98- 1.87 2.58 12.29	17.03 - 3.19	36.68 18.69	2.0025 8.29- 6.75 1.6256 1.39 3.06	1.90 .53 14.94 4.29 2.59 .80 2.54 7.44	13.60- 1.34	.70- 2.45 11.91- 5.00 .30- 3.62 3.85 2.19	14.98 3.38	11.25 6.64 8.64-5.27 6.82 2.94 1.57 8.91	8.25 2.71 8.61- 9.06 2.95- 2.26 1.21 13.11	28.49 10.1	4 187.07- 1.23
NIULII 179 OOKALA 223 OPIHIMALE 2 24.1 ORCHIO LANO EST 91.5 PAAUMAU 217	7.88 3.18 5.18- 2.99 5.63 9.17 3.46- 1.85	3.38= 8.46 1.98 14.73	19.53 13.47 18.12 3.95 2.80 12.16 16.69 7.89	17.26 11.26 18.94 5.14 5.53 21.10 12.87 4.83	7.42 = 1.86 2.97 12.78	2.42	5.57- 1.67 3.44 8.30	4.90- 4.62 4.75 10.72	2.41 - 2.75 8.17 16.05	3.11	3.45 7.74	21.40 8.8 10.25 42.15	2 76.74 18.40 7 97.45-17.90 54.50 176.71 0 71.75 5.46
PAAUILO 221 PAHALA 21 PAHOA 65 PAKAO 37 PAPAIKOU 144.1	17.24 9.21 14.75 1.70 8.75 2.16	8.84= 4.29 9.07 2.71	16.05 .84	9.37 6.21 27.43 15.91 14.03 8.70	3.23 .91 8.9798 5.00 .00	2.24 .91 14.93 6.86 2.90 .12	5.21 3.69 10.96 .47 4.95 1.23	.51- 2.55 10.5496 8.50 2.71	19.57 10.26 12.10 7.53	11.15 7.14	7.40 2.95	17.90 14.5	0 87.23-15.47 6 86.17 38.17 1 201.77 58.01 5 110.50 50.08 8 146.52 6.11
PAPAIKUU MAUKA 140.1 PEPEEKEO MAKAI 144 PIIHONUA 89 POHAKULOA 107 PUAKU 95.1	7.47- 9.72 4.73- 5.70 12.00- 7.64 3.63 4.05	10.71- 1.83	16.57 - 5.86 14.65 .31 17.60 - 8.75 3.02	26.84 15.70	3.53- 5.39	7.90 1.55	12.27- 4.48 6.79- 2.71 15.60- 4.25 1.29	7.32- 3.43	10.10 2.45	9.42- 7.67 6.21- 4.28 13.40- 4.34 .73	6.97-11.68 5.49-6.29 3.00-19.86	29.18 7.1 24.45 10.1 31.00 7.5 4.26 3.51	8 187.15=31.42 9 128.77 .57 0E216.22=34.25 22.01 16.03
PUU KIHE 120 PUU LAAU 102.1 PUU LEHUA 73 PUU MALI 113 PUUOKUMAU 167	3.61 .04 3.15 4.40 2.01 2.96 9.96 4.31	3.15 3.60 1.29 2.07	E10.31 4.29 4.80 1.80-1.36 E 5.90 22.65 15.24	8.78 8.70 6.03 7.93	5.09 3.15 2.10 3.80 .58 1.49 4.4824	1.82 .77 1.20 1.55-1.00 1.83 2.7664	2.19 4.10 1.47 1.83	.51- 3.94 3.05 4.10 .74 .55 1.53- 3.01	2.65 4.50 2.17 2.77	.97- 2.19 2.18 1.9033 1.27 2.38- 1.54	2.18-1.14 3.35 2.00 .29 2.60 .95-3.73	4.30 5.60 3.9 6.35	E 37.55
PUU 00 P2 PUU MAAMAA 94-1 SAODLE RUAO 1 84 SOUTH POINT CORRAL 3 UMIKOA 118	4.00 3.190- 11.23 8.37 4.81- 2.31	7.20	14.74	16.35 8.67 6.37 30.75 5.41 15.66 6.33	4.66 3.67 .94 16.92 3.40 9.71 4.65	6.07 .79- 1.33 14.38 2.59 3.56 1.86	12.91	4.79 2.58 .45 14.46 .06 1.43- 3.61	10.30	7.64 9.07 6.19 14.05 3.73 2.37- 2.58	3.12 1.6247 5.87 2.13 2.02 - 4.38	21.31	76.88 56.94 27.55 174.12 36.93 1E 77.15 - 2.43
UPOLU POINT USCC 159.2 MAIAKEA SCO 88.2	6.59 7.04	6.06 9.78	9.90	9.80 43.74	2.03	1.63	1.89	.87 11.78	.92 14.81	.67 9.38	1.53	6:03 28:19	47.92 175.83
1 SLANO	6.46	5.28	8.53	15.00	4.27	3.84	4.39	3.91	4.98	4.37	2.94	13.15	77.12
D	vision avera	ges in the a	nnun1 1seue	include delas	rod and some	-4-3 3-4-	1 1100						

Division averages in the annual issue include delayed and corrected data and may differ slightly from values published in monthly issues.

# TEMPERATURE EXTREMES

Table 3

									1968
Station	Highest	Date	Lowest	Date	Station	Highest	Date	Lowest	Date
* * *					* * *				
ISLAND OF KAUAI					ISLAND OF MAUI				
KANALOHULUHULU 1075 KILAUEA POINT 1133 LIHUE WB AP 1020.1 MAKAHUENA POINT 940.1 MANA 1026	80 91 86 93 93	10- 7+ 10-12+ 8-23 10- 4 7-22	38 55 56 58	2-23 2-10+ 1-25	HALEAKALA RS 338 HALEAKALA SUMMIT 338.4 HANA AIRPORT 355 KAANAPALI AIRPORT KAHULUI WB AP 398	74 68 89 91	10-22+ 8-29+ 9-19+	57	4-10+ 1-14+
NIU RIDGE 1035 WAIAHI LOWER 1054 * * *	88	9= 2 9= 8	53 50	3=21 12=28+	KAILUA 446 KEAWAKAPU 8EACH 260.2 KULA SANATORIUM 267 LAHAINA 361	88 95 81 92	10=29 2=22	55 46 59	
ISLAND OF DAHU					WAILUKU 392 * * *	92			
EWA PLANTATION 741 HONDLULU WBFC 703 HONDLULU SUBSTA 704 KAHUKU 912 KANEDHE MAUKA 781 LUALUALEI 804	92 92 88 90 90	8-18 10-14+ 10-13+ 9- 4+ 10-11	56 59 63 56 60	1- 9 12-30+ 1-29 2-12 12-27	ISLAND OF HAWAII  HAINA 214 HAWAII VOLCNS NP HQ 54 HILO W8 AIRPORT 87 KAINALIU 73.2	89 81 92 85	8 <b>-</b> 22 2 <b>-</b> 20		2-10+ 4-11 12-12+ 12-26
MAKAPUU POINT 724 OPAEULA 870 PRI WAHIAWA 820.2 WAIALUA 847	90 91 91 92	9= 2 8=18 10=23+ 9=20+	61 53 56	12-27+ - 2-12 2- 7+	KAMUELA 192.2  KAMUELA AIRPORT 191  KEAAU 92	84 83 89	10= 3 10= 3	39 58	2=12+ 2= 2 5=13+
WAIKIKI 717.2 * * *	93	9=22	56	1-31+	KEALAKEKUA 26.2 KOHALA MISSION 175.1 KONA AIRPORT 68.3	86 91 89		54 60 61	1-13 2-10+ 5-19+
ISLAND OF MOLOKAI					KULANI CAMP 79 MAUNA KEA BEACH 98 MAUNA LOA SLOPE OBS MOUNTAIN VIEW 91	98 65 86	9-15 8-28 10-11	33 53 25 50	12-31 3-24 1-29 1- 9
MOLOKAI AP 524	89	9= 2	57	2-10	NAALEHU 14	88	5-13+	56	1-10
* * * ISLAND OF LANAI					ODKALA 223 OPIHIHALE 2 24.1 PAHALA 21 UPDLU POINT USCG 159.2	90 87 87 92	10-12 9-16+ 9-15 8-15	54 52 56 61	2- 1 1-30+ 5- 5+ 2-12+
LANAI CITY 672	8.5	11-13+	56	4-10+					

HAWAII 1968

## TOTAL EVAPORATION AND WIND MOVEMENT

Table 4	10171											1		
Station		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
* * * * ISLANO OF KAUAI														
LIHUE W8 AP 1020.1	EVAP WINO MAX MIN	6.40 3066 79.8 60.6	6.188 2746 81.9 58.8	6.718 4807 79.0 62.5	7.61 3957 84.6 64.0	8.84 3581 87.1 65.6	10.82 5103 88.6 68.0	10.14 4555 89.5 68.6	-	9.20 3742 93.4 72.4	7.02 2747 90.9 70.7	6.208 2943 88.6 69.2	5.538 2913 81.1 64.4	=
* * * ISLAND OF DAHU		1												
HONDLULU 08SERV 702.2	EVAP WINO MAX MIN	3.598 787 83.9 65.0	3.85 523 89.2 65.0	4.84 1099 87.2 66.0	6.37 985 91.2 68.2	7.33 901 93.2 69.2	8.418 1210 93.8 70.4	9.15 1050 95.7 71.8	9.44 1147 95.2 71.5	7.97 935 94.9 72.2	5.808 707 93.2 71.9	4.908 743 89.9 69.4	3.658 711 82.9 65.8	75.30 10798 90.9 68.9
* * * * ISLANO OF HAWAII														
HILO WB AIRPORT 87	EVAP WINO MAX MIN	3.83 2243 80.0 63.5	5.118 1848 83.5 64.3	4.53 2253 81.1 65.9	4.858 1829 83.6 65.7	7.09 2155 87.8 66.8	5.138 16988 87.1 68.1	6.138 1398 89.0 68.3	5.538 1403 88.3 68.7	5.118 1317 88.8 68.8	6.058 1546 88.4 67.6	5.318 1535 86.0 66.4	15768 80.5 65.5	20801 85.3 66.6

CHANGES IN STATION NAME

DATE FORMER NAME NEW NAME ISLAND OF OAHU DECEM8ER 4, 1968 FWA PLANTATION EWA PLANTATION 741 ISLANO OF HAWAII KOHALA 179A FE8RUARY 1, 1968 KOHALA 179.1 RELOCATION AND CHANGES OF EQUIPMENT ISLAND OF KAUAI WAHIAWA 930 EOUIPMENT MOVEO 25 FEET SW AUGUST 8, 1968 ISLAND OF OAHU NOVEMBER 21, 1968 DECEMBER 4, 1968 APRIL 1, 1968 NOVEMBER 26, 1968 APRIL 22, 1968 EOUIPMENT MOVED 3,000 FEET NW
EQUIPMENT MOVED 400 FEET S
TEMPERATURE EOUIPMENT ADDED
EOUIPMENT MOVED 150 FEET NE
STANDARD RAIN GAGE MOVED 190 FEET WSW CAMP 84 807 EWA PLANTATION 741 LUALUALEI 804 PUNALUU 884 ISLAND OF MAUI PUUOHOKU RANCH 542.1 WAILUKU 392 STANOARD RAIN GAGE MOVEO 90 FEET ESE STANDARD RAIN GAGE MOVED 25 FEET NW JANUARY 29, 1968 JUNE 1, 1968 ISLAND OF HAWAII HONOHINA 137 KAUMANA 88.1 KOHALA 179.1 PUU LEHUA 73 STANDARD RAIN GAGE MOVED 45 FEET ESE EOUIPMENT MOVED 30 FEET NW EQUIPMENT MOVED 50 FEET SE EOUIPMENT MOVED 500 FEET ENE APRIL 1, 1968 MAY 1, 1968 FEBRUARY 2, 1968 APRIL 1, 1968

					_	-		_			•	INDEX		_									19
Station	Index No. Division No.	DISTRICT	Drainage‡	Latitude	Elevation		ecord	duri	osed ng yr.	Refer to tables		Station	Index No.	DISTRICT	Drainage‡	Latitude	Longitude	Elevation	rec	Fvap. bro	Open or ctor during	ed yr.	Refe to table
RYDESHOOD STA 985 AST LAWA1 934 KW 3 RESERVOIR 109441 LEELE 927 ALAULA 1110	A 0240 02 A 0456 02 0465 02 A 0470 02 A 0935 01 A 1038 02 1170 01	KAWAIHAU KOLOA KOLOA KOLOA KOLOA KAWAIHAU LIHUE KAWAIHAU	1 2 2 2 2 2 2 2 2 2 1 2 2 2	2 06 159	19 11 32 72 30 44 22 35 35 16 19 25 26 49	6 0 0 0 3 3 0 8	36 59 67 66 67 37			C 2 C 2 2 C 2 2 2 2 2 2 5		ISLAND OF LANAI  KANEPUL 690 KAUMALAPAU HARBOR 658 LANAI CITY 672 LANAI HALE 684 MAHANA 694 MALAUEA 676 WAIAKEAKUA 685  ISLAND OF MAUI	A 5286 0 A 5301 0 A 5704 0 A 6012 0	1 LAHAINA 1 LAHAINA 1 LAHAINA 1 LAHAINA 1 LAHAINA 1 LAHAINA 1 LAHAINA	1 1 1 1 1	20 53 20 47 20 50 20 49 20 53 20 46 20 47	156 53 156 55 156 55	1640 30 1620 3370 1430 1135 2040	35	14 6 39 6 14 6		1	2 2 3 2 2 2 2 2
UKIPO 945 LIILIULA INTAKE 1050 ATAKE WAINIHA PC 1086 ALIHIWAI RES 1131 ANALOHUUHULU 1075 APAA STABLES 1104 EALIA 1112 EKAHA 944 LAUFA 1134	A 2222 02 A 2227 01 A 2974 01 3099 03 A 3104 01 A 3159 01 A 3982 01 4272 03 A 4561 01	HANALEI KAWAIHAU KAWAIHAU KAWAIHAU KAWAIHAU KAWAIHAU KAWAIHAU	2 2 1 2 1 2 3 2 1 2 1 2 1 2 1 2	22 02 159 22 09 159 22 11 159 22 08 159 22 08 159 22 06 159 22 06 159 22 06 159 22 13 159	28 107 34 69 26 40 40 360 22 80 20 17 19 43 25 31	0 0 0 4 0 5 9 9 7	28 34 4 31 14 6 28 69 74 83			2 2 2 2 1 2 3 C 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		AUMAHI-252 FIELD 46 474 HAELAAU 477 HALEAKALA B E 5 434 HALEAKALA RANCH 432 MALEAKALA SUMHIT 338,4 HALEHAKU 492,2 HALIIMALLE 423 HAMAKUAPONO 485	A 0790 0 A 0995 0 A 0999 0 1004 0 1008 0 1016 0 A 1075 0	2 HANA 4 LAHAINA 1 MAKAWAO 1 MAKAWAO 2 MAKAWAO 2 MAKAWAO 2 MAKAWAO 1 MAKAWAO 1 MAKAWAO	1 1 2 2 1	20 59 20 57 20 51 20 50 20 46 20 43	156 36 156 18 156 19 156 15 156 16	2060 1050 2980 2100 1850 7030 9960 690 1070 320	23	6 47 77 30 8			2 2 2 1 2 3 1 2 3
ILAUEA POINT 1133 1TANO 1037-1 0LO 1033 0LOA 936 0LOA MAUKA 994 0LOKO RES 1137 UKUTULA 935 1HUE VARIETY STA 1HUE 1020	4650 03 4735 03 4 4742 02 4 4750 02	HANALEI  WAIMEA  WAIMEA  KOLOA  KAWAIHAU  KOLOA  L KOLOA  L LIHUE  LIHUE	1 2 3 2 3 2 2 2 2 2 1 2 2 2 2 2 2 2 2 2	22 11 159 22 14 159 22 02 159 22 04 159 21 55 159 21 58 159 22 11 159 21 54 159 21 59 159 21 59 159	24 18 41 215 46 3 28 24 29 64 23 73 30 10 23 37 22 20	0 17	38 32 82 64 35 66 64	14		1 2 3 C 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		HANA 354 HANA AIRPORT 355 HANAHULI 281 HOLUA CABIN 259.5 HONOKOHUA 480 HONOKOHUA 493 HONOUAN ELD 49 494 HONOMANU GULCH 341 IAO NEEDLE 387.2 KAANAPALI AIRPORT	A 1882 0 A 1887 0 A 1914 0 A 1935 0	1 HANA 1 HANA 2 HAKAWAO 4 LAHAINA 4 LAHAINA 4 LAHAINA 5 HAKAWAO 3 WAILUFU 4 LAHAINA	1 2 4 4 1	20 45 20 48 20 41 20 45 20 58 21 00 21 01 20 47 20 53 20 56	156 01 156 01 156 13 156 36 156 39 156 38 156 14 156 33	120 61 325 6930 870 135 125 6280 1100 8	18	6 18 20 5 4 41 33	JAN	1	2 2 2 2 2 2 1 2
ANAHUENA POINT 940.1 AKAMELI 965 ANA 1026 + M 1001 OHIHI UPR CROSS 1083 JUNT WAIALEALE 1047 IV RIOGE 1035	5785 02 5864 03 6082 03 6097 02 6433 03 A 6529 04 6565 03	KOLOA WAIMEA WAIMEA KOLOA WAIMEA KAWAIHAU WAIMEA WAIMEA WAIMEA LIHUE	2 2 3 2 2 3 2 2 2 3 2 2 2 2 2 3	21 52 159 21 55 159 22 02 159 22 07 159 22 11 159 22 11 159 22 04 159 22 04 159 22 04 159	27 5 38 14 46 1 28 30 36 350 20 33 30 514 44 125 28 111	2 11 0 1 55 0 0 0 0 8 0 23	11 77 64 4			1 2 3 1 2 3 2 5 2 5 2 5 1 2 3		KAHAKULOA MAURA 482+3 KAHOMA INTAKE 374 KAHULUI WB AP 398 KAILIILI 436 KAILUA 446 KAUAULA INTAKE 375 KAUPO RANCH HOUSE 259 KEAMUA 410 KEANAE 346 KEAWAKAPU BEACH 260+2	R 2572 0 A 2630 0 2679 0 A 3433 0 3576 0 3910 0 A 4091 0 4193 0	4 LAHAJNA 3' WAZLUKU 1 MAKAWAO 1 MAKAWAO 4 LAHAJNA 2 HANA 3 HAKAWAO 1 MANA 2 MAKAWAO	1 1 4 2 3	20 54 20 51 20 54 20 53 20 39 20 52	156 38 156 08 156 23 156 10	700 1585 1020		581 13 44 65 50 50 64 5		1	1 2 1 2 2 2 2 2 1 2
H WAINIMA 1115 PINCEVILLE RANCH 1117 UEHU RIDGE 1040 UH1 1013 ESERVOIR 6 1004 TABLE CAMP 1055.1 ANIAWA 930	8155 01 8165 01	1 HANALE1 1 HANALE1 3 WAIMEA 2 LIHUE 2 LIHUE 2 LIHUE 2 KOLOA 2 KOLOA 2 LIHUE	1 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	22 12 159 22 13 159 22 01 159 21 58 159 21 57 159 22 04 159 21 54 159 22 01 159 22 01 159	34 10 29 29 42 166 24 32 27 42 27 74 34 21 31 210 27 56	1 5 0 9 0 0 5 0 5	61 59 29 33 55 64 68 39 36			2 C 2 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2		K1HET 311 KFPAHULU 258 KUKU1 380 KULA HEIGHTS 323*2 KULA SANATORIUM 267 LAHAINA 361 LAUNIUPOKO VINTAKE 376 LAUNIUPOKO VINTAKE 372 LUPI UPPER 442 MAHINAHINA 466	4634 0 A 4887 0 5003 0 5006 0 5177 0 A 5408 0 A 5665 0 A 5715 0	WAILUKU 1 HANA 4 LAHAINA 2 MAKAWAO 2 MAKAWAO 4 LAHAINA 4 LAHAINA 4 LAHAINA 1 MAKAWAO 4 LAHAINA	2 2 4 4 4 1	20 47 20 42 20 53 20 51 20 51 20 53	156 04 156 35 156 19 156 22 156 41 156 37 156 39	2520 3004 45 1280	31 24	51 51 55 55 55 55 55		1	2 2 1 2 1 2 2 2 2 2
AIAWA 943 NILUA KAI 1065 NIMEA 947 SST LAWAI 931 ISLAND OF OAHU HUIMANU LOOP 839-12 164 FIELD 625 761	9253 03 A 9467 02 9629 03 A 9955 02	WAIMEA 2 LIHUE 3 WAIMEA 2 KOLOA 1 KOOLAUPOKO 3 EWA	3 2 2 3 2 2 3 3 2 3 3 2	21 59 159 22 02 159 21 57 159 21 54 159 21 26 157 21 25 157	43 1 21 5 41 2 31 21 51 32 57 45	0000	74 6 56 67	JUL		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		MOKUPEA 475 NAKALELE -FLD 60-497 OLINDA 332 OLOWALU 296 OLOWALU 297 PAIR 406 PAINLEIMULU 259-2 PAUWELA 490 POMAKEA 8710GE 307+2	A 6645 0 A 7040 0 7059 0 A 7066 0 7194 0 7566 0 A 7674 0	1 WAILURU	1 4 4 1 1 2	21 02 20 48 20 49 20 51 20 49 20 55 20 41	156 17 156 38 156 36 156 07	1290 340 4127 7 800 1260 170 3570 485 167		31 51 5 57 64 64 5 52			2 2 2 2 2 2 2 2 2
UNCH COLLEGE LAIE VOCONUT ISLAND 840-1 UNSETT HIGHLOS 780-8 HA PLANTATION 741 LAWA SHAFT 771-2 LLEMANO INTAKE 881 NULLOA 725-2 NOLULUL UNSERV 702-2	A 0300 03 0340 01 0350 01 0438 02 0507 03 0964 02 A 1384 05	KOOLAUPOKO KOOLAUPOKO HONOLULU HONOLULU BEWA HONOLULU WAIALUA	3 2 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	21 19 157 21 26 158 21 39 157 21 26 157 21 21 157 21 21 157 21 21 158 21 23 157 21 33 158 21 24 158 21 19 158 21 20 157	04 76 56 2 47 1 50 56 02 5 54 17 00 127	0 62	51	6		2 C 2 2 2 C 1 2 3 C 2 C 2 4		POLIPOLI SPRINGS 267.2 PUOHOKAMOA 2 34.3 PUU AUKUI MAKA1 472 PUUNENE 396 PUU PAKI 352 SPRECKELSVILLE 400.2 TWIN GATES 261.3 UKULELE 333 UKUMEHAHE 301 ULUPALAKUA RANCH 250	A 8336 0 A 8444 0 8543 0 8553 0 8688 0 A 8742 0 A 8744 0 A 8750 0	2 MAKAWAO 1 HANA 4 LAHAINA 3 WAILUKU 1 HANA 3 WAILUKU 3 MAKAWAO 1 MAKAWAO 4 LAHAINA 2 MAKAWAO 2 MAKAWAO	3 1 3 1 4	20 55 20 53 20 46 20 54 20 46 20 48 20 48	156 25 156 23 156 15	2500 60 2160 85 1310 5230 75		51 40 57 64 61 5 63 39			2 2 2 2 2 2 2 2 2
DNOLULU SUBSTA 704 S P A EXP STA 707 AALAKEI 724.6 AHANA 883	1924 02 2146 02 2269 02 A 2462 01 A 2570 02 2683 02 2960 03	HONOLULU HONOLULU HONOLULU HONOLULU KOOLAULOA KOOLAULOA KOOLAULOA KOOLAUPOKO HONOLULU KOOLAUPOKO	2 2 2 1 1 1 1 2 2 2	21 20 157 21 19 157 21 18 157 21 18 157 21 31 157 21 31 157 21 24 157 21 23 157 21 23 157	52 1 50 5 43 1 54 80 57 2 45 1 50 91	5 5	51 51 76 10 41			1 2 3 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2 C 2		WAHIKULI 364 WAIEHU CAMP 484 WAIHEE VALLEY 482 WAIKAMO1 449 WAIKAMO1 DAM 336 WAILUA 1KI 348 WAILUA IKI 348 WAILUA 1RACO	9275 0 9315 0 A 9332 0 A 9335 0 A 9376 0 9460 0	1 MAKAWAO 13 WAILUKU 11 MANA 13 WAILUKU	3 4 1 1 3 1 3	20 55 20 57 20 52 20 49 20 52 20 48 20 54	156 40 156 31 156 32 156 12 156 14 156 31 156 09 156 30 156 12	320 300 1200 4320 470 2630 200	57	48 59 52 62 51 74 67		1	2 2 2 2 2 2 2 2 2 2
INEOHE RANCH 838 IPAKA MAKAI 905.1 IPAKAMA 773 IWAIMAPAI 841 IWAI IKI INTAKE 880.2 IWELA MAUKA 906.3 IWOO CAMP 8 855 IOLAU JAH 833 JALUALEI 804	A 3123 0; 3220 0; A 3268 0; A 3734 0; A 3741 0; 3825 0; A 4318 0; 4766 0;	I KOOLAUPOKO 1 KOOLAULOA 2 HONOLULU 5 WAIALUA 5 WAIALUA 2 KOOLAUPOKO 5 WAIALUA 5 WAHIAWA 4 WAIANAE 4 WAIANAE	1 2 5 5 5 5 5 5 5	21 23 157 21 36 157 21 21 157 21 35 158 21 34 157 21 40 158 21 33 158 21 30 157 21 26 158 21 29 158	47 36 54 1 52 61 11 2 59 116 00 105 05 72 58 116	5 0 4 0 0 0 5 0	24 46 39 13 44 54			2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2 2 C 2		ISLANO OF HAWAII  AHUA UMI 75 AWINI 182.1 EAST HOMOKANE 183.2 HAINA 214 HAKALAU 142 HALEAJUMAU 52 HALEPULA 117 HALEPOHAKU 111 HAWAII VOLCAS NP HQ 54	A 0190 0 A 0450 0 0840 0 0905 0 A 1033 0 A 1060 0	1 HAMAKUA 2 HAMAKUA	1 2 3	20 10 20 07 20 06 19 54 19 24 19 56 19 46	155 47 155 43 155 43 155 28 155 08 155 17 155 24 155 28 155 16	1870 4240 460 105 3648 5770 9220		45 63 43 79 77 36 54 29			2 2 2 2 2 2 2 2 2
JUNKU 701.7 JINALILO HOME 724.2 AKAHA KAI 796 KKAHA VALLEY 800.1 AKAPUN POINT 724 ANDA 712 ANDA TUNNEL 2 716 AJNAWILI 787.1	5655 0 5675 0 57766 0 5781 0 5800 0 6122 0 6130 0 6222 0	1 KOOLAUPOKO 2 HONOLULU 4 WAIANAE 4 WAIANAE 2 HONOLULU 2 HONOLULU 2 HONOLULU 1 KOOLAUPOKO 2 HONOLULU	1 2 4 4 2 2 2 2 1 1	21 24 157 21 17 157 21 28 158 21 29 158 21 19 157 21 19 157 21 20 157 21 21 157 21 21 157	49 24 42 4 13 2 12 16 39 53 49 22 48 65 46 41	0 20	14 12 42 10 56 50 41			C 2 2 2 2 1 2 3 2 2 2 C 2		HAWI 168 HILLO WB AIRPORT 87 HOLUALOA 70 HOLUALOA BEACH 68 HONAUNAU 27 HONOHINA 137 HONOKANE 181-1 HONOMU MAUKA 138 HONUAULA 71	R 1492 0 A 1557 0 A 1562 0 1665 0 1701 0 A 1864 0 A 2047 0	1 N KOHALA  22 S HILO 44 N KONA 44 N KONA 44 S KONA 12 N HILO 11 N KOHALA 12 S HILO 14 N KONA	1 2 4 4 2 1 2	20 14 19 43 19 38 19 37 19 27 19 56 20 09 19 51 19 40	155 50 155 04 155 55 155 59 155 53 155 09 155 44 155 09 155 53	27 3220 14 1089 300 800 1100 6250	22	69 26 1: 40 48 30 75 63 30 39	3	!	1 2 2 2 2 2 2 2 2 2 2
UNCHBOWL CRATER 709	A 6928 0. A 6933 0. 7150 0. 7664 0. 7910 0. 7933 0. 8126 0. A 8172 0.	2 HONOLULU 5 WAHIAWA 2 HONOLULU	2 2 5 2 2 5 5 5	21 31 158 21 21 157 21 21 157 21 34 158 21 20 157 21 21 157 21 25 157 21 25 157 21 27 157 21 28 158 21 19 157 21 39 158	49 104 50 41 02 106 46 99 48 164 58 24 43 01 76	0 6:	64 79 64 41 41 5 3 3			2 1 2 3 C 2 2 2 2 C 1 2 3 C		HUALALAI 72 HUEHJE 92-1 KAALA IKI 12 KAAWALOA 29 KAHJAWAI 1-4 KAINALIU 73-2 KALAPANA NO 1 67-8 KAMAOA NO 2 5 KAMUELA 192-2 KAMUELA 192-2 KAMUELA 1870PT 191	A 2156 G A 2249 G A 2327 G 2512 G 2751 2894 G A 3048 G 3077 G 3078 G	14 N KONA 13 KAU 14 N KONA 12 S HILO 13 KAU 11 S KOHALA 15 S KOHALA	3 4 3 4 2 3 1	19 45 19 08 19 30 19 08 19 32 19 20 19 02 20 01	155 52 155 59 155 34 155 55 155 46 155 56 155 60 155 40 155 40 155 40 155 27	1960 1340 1330 3700 1500 10 1375 2670	33	30 27 38 2 14 78		į	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
AMIAWA DAM 863 AIAHOLE 837 AIALAE KAHALA 715 AIALUA 847 AIANAE 798	8600 0 8730 0 8738 0 A 8815 0 A 8945 0 A 8964 0 9185 0 A 9195 0	1 WAIALUA KOOLAUPOKO 2 HONOLULU 2 HONOLULU 5 WAHIAWA 1 KOOLAUPOKO 4 HONOLULU 5 WAIALUA 4 WAIANAE	1 2 2 2 5 1 2 5 5	21 22 157 21 20 157 21 20 157 21 30 158 21 30 158 21 28 157 21 17 157 21 35 158 21 27 158	47 48 49 200 50 132 49 03 85 53 74 47 67	18 10 15 19 14 15 10 12 6	26 5 43 55 52 46 1 68	JUL		2 C 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		KAPAPALA RANCH 36 KAPOHO LANOING 93.5 KAUMANA 88.1 KAWAINUI LOWER 193 KEAJWA CAMP 22.1 KEAJWA CAMP 22.1 KEAJWA CAMP 12.2 KEHENA 181.2 KEHENA 181.2	A 3770 0 3872 0 3925 0 3977 0 4098 0 A 4245 0	22 PUNA D2 S HILO D1 HAMAKUA D2 PUNA D3 KAU D4 S KONA D2 HAMAKUA D1 N KOHALA D1 N KOHALA	2 2 1 2 3 4 2 1	19 30 19 41 20 05 19 38 19 14 19 30 19 55 20 07	154 52 155 09 155 39 155 02 155 29 155 55 155 21	290 1123 1080 280 1700 1450 5280 3840	6	82 6 30 58 6 53		LPR	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Alawa Mauka 803 Alawa 836 Alkake 885 Alkiki 717.2 Allupe RESv. 723.2 Allupe VLY SCH 723.6 Almanalo 792	A 9238 0 A 9261 0 A 9340 0 9397 0 A 9495 0 9500 0 A 9521 0 A 9593 0 A 9738 0	4 WATANAE 3 EWA 1 KOOLAUPOKO 12 HONOLULU 2 HONOLULU 2 HONOLULU 1 KOOLAUPOKO 5 WATALUA	3 1 2 2 2 1 5 3	21 29 158 21 28 157 21 30 157 21 16 157 21 18 157 21 18 157 21 21 157 21 21 157 21 38 158 21 23 158 21 18 157	09 15 56 86 53 76 49 45 1 45 1 46 04 46	75 00 50 10 70 80 80 80	63 52 52 52 4 14 69 52 70			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		KIOLAKAA A + F 6 KIPA 89=2 KOHALA 179=1 KOHALA HAULILI 176 KOHALA MISSION 175=1 KOIAME LOWER 196 KONA AIRPORT 68=3 KONA VILLAGE 93-8 KUKAIAU 222 KUKUHAELE HIC 199	A 4625 CA 4632 CA 4670 CA 4675 CA 4680 CA 4764 CA 4765	33 KAU 22 S HILO 21 N KOHALA 21 N KOHALA 21 N KOHALA 21 N KOHALA 21 HAMAKUA 24 N KONA 25 HAMAKUA 26 HAMAKUA 27 HAMAKUA	1 1 1 1 4 4	20 14 20 13 20 14 20 05 19 39 19 52	155 48 155 38 155 09 155 47 155 47 155 48 155 38 156 01 155 55 155 21 155 35	309 960 537 720 17	19	26 39 16 73 61 78 58 19 173 59	MAY	1	2 2 2 2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
ISLAND OF MOLOKAI ALAUPAPA 563 AMALO MAUKA 542.6 AUNAKAKAI 536 AUNAKAKAI MAUKA 536.5 EONELELE PENS 551 UALAPUL 534	2896 0 3046 0 A 3541 0 3547 0 A 4394 0 A 4778 0 6138 0 A 6190 0	MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI II MOLOKAI	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21 12 156 21 04 156 21 06 157 21 06 157 21 12 157 21 09 157 21 04 156 21 08 157 21 09 157	59 52 01 01 12 59 02 8	30 12 70 30	14 5 69 49			2 C 2 C 2 C 2 C 1 2 3		KUKUHAELE MILL 206 KULANI AMUTA 76 KULANI MAUTA 76 KULANI SCHOOL SITE 78 LALAMILO FLD OFF 191.1 LANIHAU 68.2 LAVE TREE PARK 66.1 MANUKA 2 MAUNA CA BEACH 98 MAUNA LOA SLOPE 005 MIDDLE MOLUALOA 68.1	A 4938 0 5011 0 A 5018 A 5021 0 5260 0 5330 0 5460 0 A 6134 0 6198 0 6198	DI HAMAKUA 2 S HILO DS N HILO D2 S HILO D1 S KOHALA D4 N KONA D2 PUNA	1 2 5 2 1 4 2 3	20 08 19 33 19 35 19 35 20 01 19 40 19 29 19 07 20 01	155 34 155 18 155 27 155 20 155 41 155 58 154 54 155 50 155 50 155 50	300 5170 8300 5735 2615 1530 650 1760	2	78 20 17 21 26		1	2 2 2 1 2 2 1 2 2

			STATION	INDEX				HAWA11 1968
Station	Index No. Division No.	Drainage‡ Latitude Longitude	Years of record or closed dumny record to to tables	Station	Index No. Division No.	Drainage‡ Latitude Longitude Elevation	Tears of record during yr of the decord during yr of t	Refer
DIAND OF HAWAII  MANUALIN VIL 91  MANUAL	A 6437 03 KAU A 6932 02 PANA A 6936 03 KAU A 6936 03 KAU A 6937 04 S KONA 6731 02 PUNA A 716 02 PUNA A 716 02 PUNA 710 04 5 CONA 710 05 PU	3 19 11 15 5 35 2 19 33 15 5 0 3 19 04 15 5 3 4 19 28 15 5 0 2 19 13 16 5 0 2 19 13 16 5 0 2 19 19 15 0 4 19 18 15 0 4 19 18 15 0 4 19 18 15 0 2 19 34 15 0 1 20 0 4 15 2 2 19 34 15 0 1 2 0 0 5 15 2 2 19 34 15 0 1 2 0 0 5 15 2 2 19 34 15 0 2 19 35 15 0 2 19 34 15 0 2 19 34 15 0 2 19 34 15 0 2 19 34 15 0	0 600 69 2 2 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ISLAND OF HAMAII PUN AIME 120 PUN LAAV 102.1 PUN LAAV 102.1 PUN LAAV 102.1 PUN HALI 113 PUN HALI 113 PUN HALI 113 PUN HALI 113 PUN HALI 113 PUN HALI 113 PUN HALI 113 SODLE ROAD 1 84 SOUTH POINT CORRAL 3 SOUTH POINT CORRAL 3 SOUTH POINT CORRAL 3 SOUTH FACKING STA UMINOA 118 UPOLJ POINT USCG 159.2 #AIAKEA SCD 88.2 #AIAKANNOULA 178.6	A 8393 01 HAMAKUA A 8462 05 HAMAKUA A 8460 06 N EONA A 5515 01 HAHAKUA A 5550 02 S HILO A 8555 05 S HILO A 8555 05 S HILO A 8550 01 KAN B 8590 02 S HILO B 8780 01 HAHAKUA B 8300 01 HAHAKUA 9780 01 N KOHALA 9780 01 N KOHALA	1 19 54 155 24 775 51 19 50 155 36 744 4 19 34 155 49 48 11 19 55 155 26 696 11 19 55 155 26 696 12 19 44 155 23 63 51 19 47 155 51 25; 21 19 42 155 12 23 3 18 57 155 41 46 3 18 57 155 41 15 11 25 15 155 23 21 29 40 155 08 101 1 20 08 155 08 101	0 36 0 45 0 45 0 36 0 3 0 3 0 20 0 20 1 10 12 0 16	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

TRAINAGE CODE: KAUAI: 1-NORTHERN 2-SOUTHEASTERN 3-SOUTHWESTERN OAHU: 1-WINDWARD KOOLAU 2-HONOLULU 3-SOUTH-CENTRAL 4-WESTERN 5-NORTH-CENTRAL MOLOKAI: 1-(NO DITRA-ISLAND DIVISIONS) LANAI: 1-(NO DITRA-ISLAND DIVISIONS) MAUI: 1-NORTHEASTERN 2-EASTERN 3-SOUTHERN 4-WESTERN 5-CENTRAL

#### REFERENCE NOTES

Additional information regarding the climate of Hawaii may be obtained by writing to the Environmental Science Servicee Administration Regional Climatologist, P. O. Hoa 3650, Honolulu, Hawaii 9881, or to any Weather Bureau Office near you. Additional precipitation data are contained in "HOUNLY PRECIPITATION DATA"

DIMENSIONAL UNITS Unless otherwise indicated, dissussional units used in this bulletin are Temperature in 'F, precipitation and evaporation in inches, and vind movement in miles.

EMADERATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the Evaporation and wind table was and Min in Evaporation and wind table refer to extremes of temperature of water in pan as recorded during 24 hours ending at time of observation.

EVAPORATION is measured in the standard Weather Bureau type pan of 4-foot diameter unless otherwise shown by footnote following the Evaporation and Wind table. Max and Min values in the Evaporation and Wind table are monthly averages of deally extreme of temperature of water in pan as recorded during 24 hours ending at time of observation. Wind is the total wind movement in miles over the evaporation pan as determined by a continuous anemometer recorder located 8-8 inches above the pan.

NORMALS for all stations are climatological normals based on the period 1931-1960. "DEP" in Table 4 refers to departures from long-term means based on periods varying from 10 to 29 years which are used in place of normals.

STATION NAMES: Figures and letters following the station name, such as 181.1, are Pineapple Research Institute gage numbers

DELAYED DATA AND CORRECTIONS will be carried in the June and December issues of Cimatological Data.

#### IN THE DATA TABLES THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- . Also on earlier date (dates) or months
- · Amount included in following measurement.
- A The letter "A" shown following station name, (Table 2 and Station index): Amounts carried in the monthly "Precipitation" column are for the period from iset measurement of a preceding month through the last measurement of the current month. See Daily Precipitation Table of the monthly climatological Data for the date of gensurement. Weauterments made on the first of a month are credited to the last day of the preceding month of the control of the con
- H Adjusted to a full month.
- E Amount is wholiv or partially estimated
- 8 One or more daye record missing; if average value is entered, less than 10 days record is missing. See monthly Climatological Data for detailed daily record.
- R Amounte from recording gage
- T Trace, an amount too emall to measure
- V includes total for previous month. V in annual column means total is for a two-year period

#### IN THE STATION INDEX THE SYMBOLS AND LETTERS WHEN USED INDICATE THE FOLLOWING:

- # Thermometers are generally exposed in a shelter located a few feet above sod covered ground; however, the reference indicates that the thermometers are exposed in a shelter located on the roof of a building.
- C In Special Column of Station index indicates Recording Rain Gage Station. Hourly precipitation values are processed for special purposes, and are published later in the "Bourly Precipitation Data" bulletin. If daily amounts are published in "Climatological Data" bulletin they are from a separate non-recording gage, except where indicated by reference 'R'. Such amounts may differ from amounts published from the recording gage in the "Hourly Precipitation Data" bulletin.
- S Storage procipitation etation Precipitation measuremente, made at irregular intervals, will be published in the December issue of Climatological

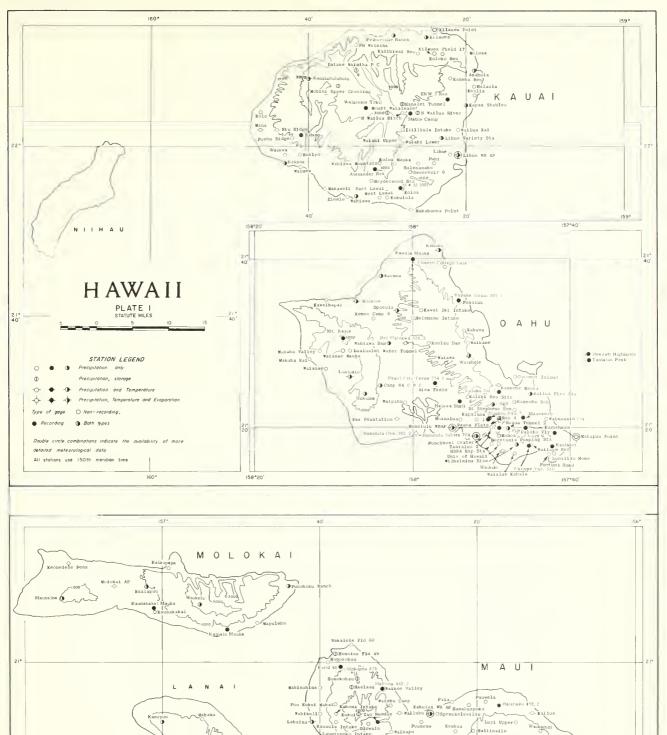
Yeare of record as shown in the Station index are approximate eince gaps in the records may not have been considered in arriving at the totals sho

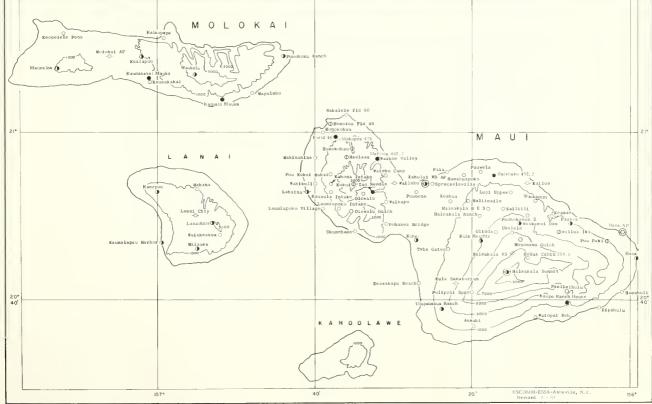
The four-digit identification numbers in the Index are assigned on an island basis. There will be no duplication of numbers within an island

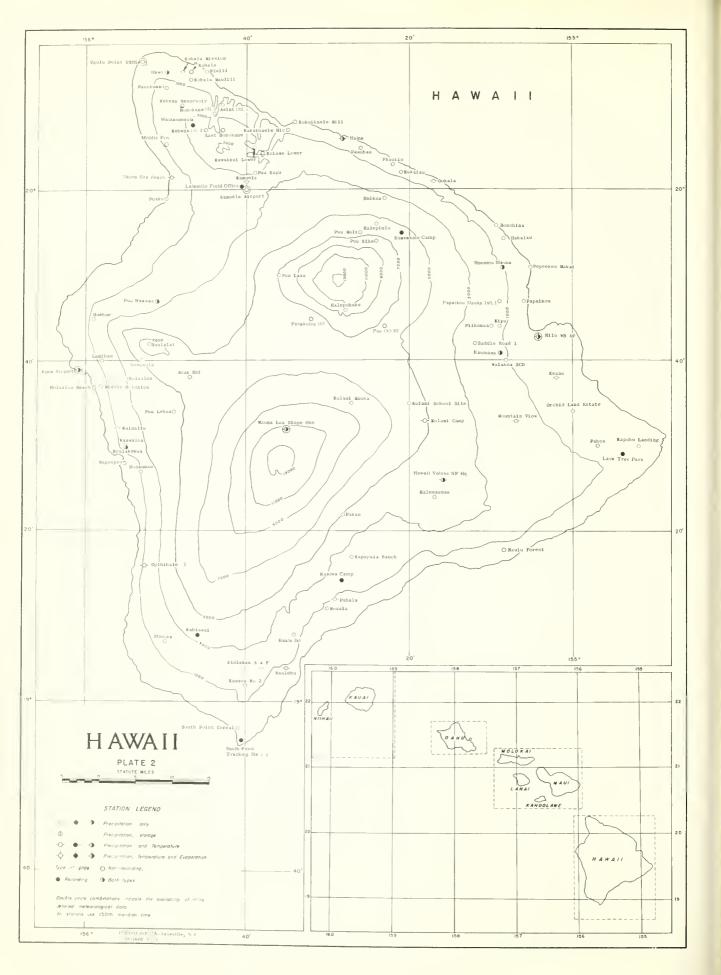
information concerning the history of changes in location, elevations, exposures, etc., of substations through 1857 may be found in the publication "Substation Ristory" for this State. That publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, for 40 costs. Similar information for regular Weather Bureau etations may be found in the latest annual issue of Local Climatological Data, obtained as indicated above, price is cents.

obscription Price 20 cents per copy, monthly and annual; \$2.50 per year (Yearly subscription includes the Annual Summary.) Checke and money order could be made payable to the Superintendent of Document. Remeittances and correspondence regarding subscriptions should be sent to the Superintendent Documents, Overnment Printing Office, Washington, D. c. 20402.

TISCOMM-ESSA-ASHEVILLE-5/2/69-990









AR SEER GMA EDATEOR

DEPARAMENT OF CONNERCE
OFFICIAL STREET

Clemson University Library

Science, Tech., & Agri. Division

CD-All-Free
Clemson, South Carolina 29631

**ULL DEPARTATIOT CO COMMERCE**BREADAMENTAL SCIENCE SVCS ADMU

MARGINEL MEATHER RECORDS CENTER

NAMEGIAL WEATHER RECORDS CENTER
PREPARE, DUILDING
AMERICE, NORTH CAEGINA 28803











